

Operable Unit No. 4
Solar Evaporation Ponds
Interagency Agreement (IAG)
Phase II RCRA Facility Investigation/
Remedial Investigation (RFI/RI)
Requirements Post Closure Assessment

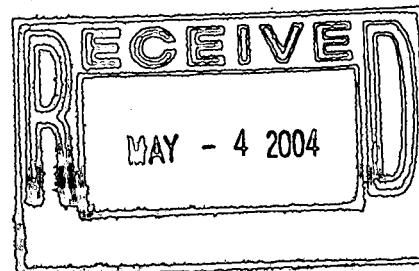
Project Implementation Plan
(Revised Draft - Rev. 2)

Prepared for

EG&G Rocky Flats

Subcontract MTS 343780GG3
under Master Task Subcontract MTS 225453RR

August 1994



**ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
OPERABLE UNIT (OU) NO. 4
SOLAR EVAPORATION PONDS
PHASE II RFI/RI REQUIREMENTS**

PROJECT IMPLEMENTATION PLAN

EXECUTIVE SUMMARY

The Project Implementation Plan has been developed in accordance with the requirements of Paragraph 4.2.1.4 of the "Statement of Work for Operable Unit No. 4, Solar Evaporation Ponds, Interagency Agreement (IAG) Phase II RFI/RI Requirements, Post Closure Assessment" dated March 31, 1994 (Rev. 3), and the Parsons Environmental Services, Inc. (Parsons) and Engineering-Science, Inc. (ES) Project Management Plan for Master Task Subcontracts with EG&G Rocky Flats, Inc. (EG&G), dated April 22, 1994. The OU4 Phase II Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation Requirements project (OU4 Phase II RFI/RI) is being performed in accordance with Subcontract MTS 343780GG3 under Master Task Subcontract (MTS) 225453RR between ES and EG&G.

The OU4 Phase II RFI/RI Project Implementation Plan includes the Project Management Plan and Master Schedule. The Project Management Plan outlines the OU4 Phase II RFI/RI organization structure with corresponding responsibility matrix, the Work Breakdown Structure (WBS), and the Project Control System to be used in managing project/activity costs and schedules relative to the WBS. The Project Management Plan for the OU4 Phase II RFI/RI is structured to comply with the applicable requirements of DOE Order 4700.1, in accordance with the Parsons/ES MTS Project Management Plan.

The Master Schedule section of the Project Implementation Plan defines the OU4 Phase II RFI/RI schedule basis and assumptions, and includes the sequence, logic, and duration of activities relative to the WBS in GANT Chart format.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACWP	Actual Cost of Work Performed
ARAR	Applicable or Relevant and Appropriate Requirements
BAC	Budget At Completion
BCWS	Budgeted Cost of Work Scheduled
CDH	Colorado Department of Health
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMS/FS	Corrective Measures Studies/Feasibility Studies
CO	Consent Order
CTR	Contract Technical Representative
DOE	U.S. Department of Energy
EAC	Estimate at Completion
EG&G	EG&G Rocky Flats, Inc.
EPA	U.S. Environmental Protection Agency
ETC	estimate to complete
FFCA	Federal Facility Compliance Agreement
IAG	Interagency Agreement
IHSS	Individual Hazardous Substance Sites
IM/IRA	Interim Measures/Interim Remedial Action
ITS	Interceptor Trench System
MTS	Master Task Subcontract
NEPA	National Environmental Policy Act
OU	Operable Unit
PMP	Project Management Plan
RCRA	Resource Conservation and Recovery Act
RFETS	Rocky Flats Environmental Technology Site
SEP	solar evaporation ponds
WBS	Work Breakdown Structure

1.0 PROJECT MANAGEMENT PLAN

1.1 Introduction

This Section provides introductory information concerning the project and the OU4 Phase II RFI/RI Project Management Plan (PMP).

1.1.1 Project Summary

Engineering-Science, Inc. (ES), a unit of Parsons Environmental Services, Inc. (Parsons), has Master Task Subcontracts (MTSs) with EG&G Rocky Flats, Inc. (EG&G). EG&G is a management and operating contractor to the U.S. Department of Energy (DOE) for the Rocky Flats Plant near Golden, Colorado. EG&G has initiated MTSs for 12 areas of activity for engineering, technical, scientific, and support services for Environmental and Waste Management Programs. Parsons/ES was awarded MTSs in two areas of activity, designated as Area 1 and Area 3. The OU4 Phase II RFI/RI is being performed as an Area 1 activity.

Area 1 includes technical, engineering, and scientific remediation and waste management support and associated research services. Tasks in this area may include, but are not limited to:

- Treatability/feasibility work plans, studies, and research;
- Engineering evaluation support;
- Contaminant dispersion prevention studies;
- RFI/RI, Corrective Measures Studies/Feasibility Studies (CMS/FS), and corrective/remedial action plans; and
- Site assessments of facilities.

The MTSs establish the terms and conditions, programmatic reporting requirements, and unit hourly rate pricing agreements for the work. Each task order is a subcontract within the MTS structure.

The Rocky Flats Plant was an integral part of the DOE weapons complex. The plant manufactured plutonium, uranium, stainless steel, and other metallic parts for use in nuclear weapons from 1951 to 1992. With the decrease of nuclear weapons production, the plant is planned to be environmentally restored and released for other purposes. The timetable and requirements for restoration are documented in the Federal Facility Compliance Agreement (FFCA I) and Consent Order (CO), also known as the Interagency Agreement (IAG) between the DOE, the U.S. Environmental Protection Agency (EPA), and the Colorado Department of Health (CDH). In July 1994, the DOE formally changed the designation of the installation to

the Rocky Flats Environmental Technology Site (RFETS) to more accurately reflect its mission change.

The RFETS occupies 6,550 acres. The former main production facilities are contained within a central security fenced area of 384 acres. Security provisions are maintained at the site because of the classified information and the large quantities of special nuclear material (SNM) that are held in storage. Storage of SNM is required until such time that an appropriate alternate facility for SNM storage is designated. The facilities also store large quantities of radioactive mixed hazardous wastes. Storage of mixed waste is required until remediation treatment processes are defined and/or until an appropriate alternate facility for mixed waste storage is designated. Storage of mixed hazardous waste must also meet the requirements of the Federal Facilities Compliance Agreement (FFCA II) between the DOE and EPA. Many of the facilities and site areas are radioactively contaminated to varying degrees, such that nuclear health and safety provisions are employed to protect workers and to protect the environment from further potential degradation while restoration is planned and implemented. As a part of the restoration effort, surplus facilities and buildings that are transitioned out of defense programs will be decontaminated and decommissioned.

The IAG groups the plant areas requiring environmental restoration, identified as 178 inactive Individual Hazardous Substance Sites (IHSSs), into 16 Operable Units (OUs). The IAG defines the general activities required for restoration and establishes milestone dates for their completion. The IAG also identifies which of the OUs will have EPA providing lead oversight of the restoration activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements, and which of the OUs will have CDH providing lead oversight under RCRA. In general, restoration activities are required to comply with DOE requirements, standards, and COs, RCRA, CERCLA, and National Environmental Policy Act (NEPA) requirements.

OU4 includes IHSS 101, composed of five solar evaporation ponds (SEPs), designated as 207A, 207B Series (north, center, and south), and 207C. The OU4 boundary also extends to the north and northeast of the SEPs. OU4 actions identified under the IAG are segregated into Phase I and Phase II activities. Phase I activities address source and soil contamination, while Phase II activities address contamination based on the nature and extent of the potential hazards. OU4 actions previously initiated have included development of a Phase I RFI/RI Work Plan; implementation of the Phase I RFI/RI Work Plan; development and implementation of an Interim Measures/Interim Remedial Action (IM/IRA) Decision Document for collecting, storing, and remediating ground water via the Interceptor Trench System (ITS) located north and northeast of the SEPs; and development of an IM/IRA Environmental Assessment Decision Document to evaluate alternatives and recommend the approach for closure of the SEPs. Future planned actions will include implementation of the recommended closure approach.

The OU4 Phase II RFI/RI is being initiated to investigate and evaluate the nature, extent, and potential environmental impacts of contamination attributable to the SEPs; provide data

directly supportive of a future CMS/FS; and to assess the performance of the planned closure of the SEPs.

1.1.2 Basis

The basis for this OU4 Phase II RFI/RI Project Management Plan is the March 31, 1994 (Rev. 3) Statement of Work (SOW) for the OU4 Phase II RFI/RI and the Parsons/ES MTS PMP. The MTS PMP is developed in accordance with the applicable requirements of DOE Order 4700.1.

1.1.3 Objectives

The objectives of this OU4 Phase II RFI/RI Project Management Plan are to provide requirements and guidance to key and supporting Parsons/ES personnel on the conduct of operations for the project. The OU4 Phase II RFI/RI Project Management Plan establishes the objectives and responsibilities for project activities.

In support of the OU4 Phase II RFI/RI Project Management Plan and other MTS Program management activities, other plans and procedures are adopted to address specific topics. These include:

- Program Health and Safety Plan,
- Project Health and Safety Plan,
- Quality Assurance Program Plan, and
- Project Procedures.

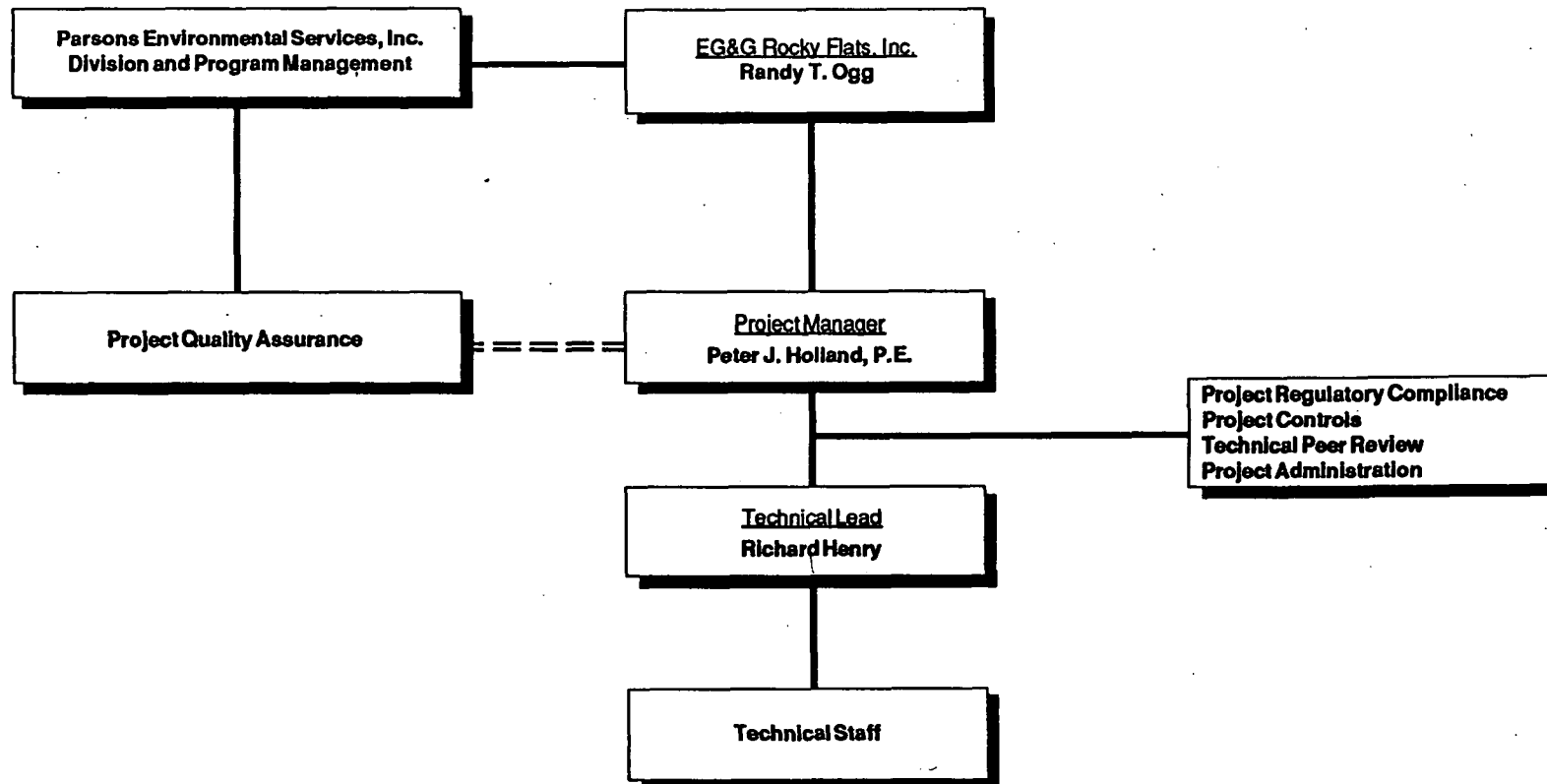
The requirement for developing and updating the OU4 Phase II RFI/RI PMP is the responsibility of the OU4 Phase II RFI/RI Project Manager. Supporting program plans and procedures are the responsibility of the MTS Program Manager and are developed by the various program staff. Specific procedures for the OU4 Phase II RFI/RI are in accordance with the Parsons/ES MTS Project Procedures.

1.2 Project Organization

1.2.1 Project Personnel Assignments

The project management and technical organization is shown on Figure 1-1 and Figure 1-2, respectively. The organization charts show the Parsons/ES project organization down to the level of the technical support staff, and identifies reporting relationships for the project.

1.2.1.1 Roles and Authorities. MTS program and OU4 Phase II RFI/RI staff members have several common responsibilities in performance of their duties. Each staff member is directly responsible for:



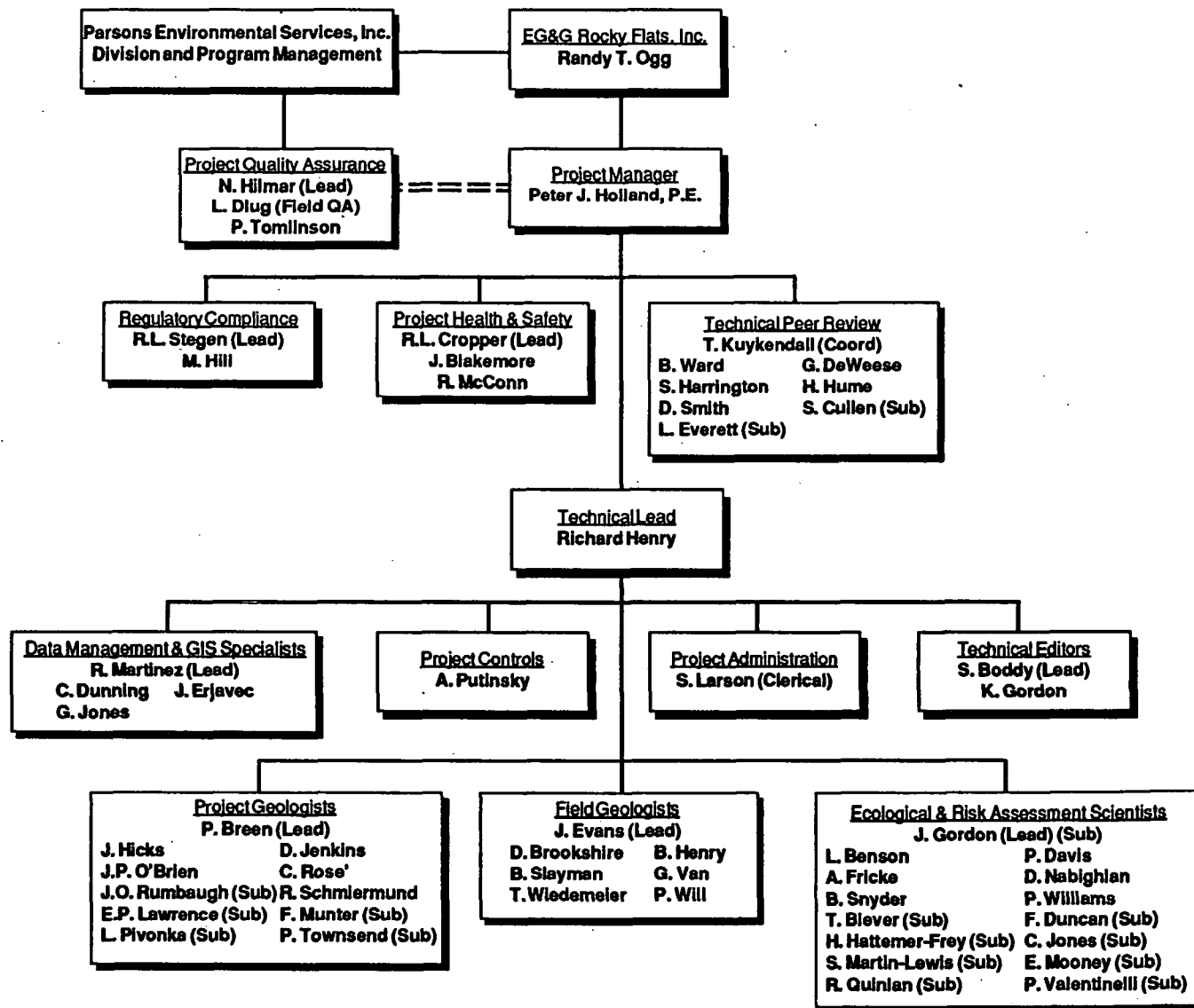
Coordination ==

Authority & Responsibility —

**FIGURE 1-1: OU4 PHASE II RF/RI
PROJECT MANAGEMENT ORGANIZATION**

Revision 2

R.H. Wilkinson 8/26/94
R.H. Wilkinson Date



Coordination =====

Authority & Responsibility _____

FIGURE 1-2: OU4 PHASE II RF/RI
TECHNICAL ORGANIZATION

Revision 2

R. H. Wilkinson

Date

8/26/94

- The quality of their assigned work products;
- Implementation of the OU4 Phase II RFI/RI Project Management Plan;
- Ensuring that personnel assigned to work under their direction have the skills and abilities required for performance;
- Ensuring that personnel assigned to work under their direction have a clear understanding of their responsibilities and task requirements;
- Ensuring that personnel assigned to work under their direction are adequately trained in the applicable program and project policies and procedures;
- Monitoring the performance of activities under their direction and implementing corrective actions as required to meet program and project objectives; and
- Identifying operational areas of program or project activities where improvements can enhance the quality of performance.

The specific responsibilities and authorities of the MTS Program and OU4 Phase II RFI/RI organization positions are described in this subsection. The positions described are:

- Program Manager;
- Deputy Program Manager;
- Quality Assurance Manager;
- Regulatory Compliance Manager;
- Health and Safety Manager;
- OU4 Phase II RFI/RI Project Manager;
- Project Controls Manager.
- OU4 Phase II RFI/RI Technical Reviewers;
- OU4 Phase II RFI/RI Technical Lead; and
- Project Controls Manager.
- OU4 Phase II RFI/RI Technical Reviewers;

- OU4 Phase II RFI/RI Technical Lead; and
- OU4 Phase II RFI/RI Technical Support Staff.

MTS Program Manager. The Program Manager for the MTS Program is directly responsible to Engineering-Science, Inc., Parsons Environmental Services, Inc., and to EG&G Rocky Flats, Inc, for effective performance of all work for the program. The Program Manager is the primary single point of contact for MTS Program administration, and provides the day-to-day management, administrative, and technical oversight for all MTS efforts. The Program Manager is responsible for compliance with the MTS terms and conditions and with EG&G direction and requirements; for full oversight of program and project performance; for approval of project planning, budgets, schedules, estimates, and lower-tier subcontractors; and for compliance with all program criteria and objectives. The MTS program staff, project and task managers, and key technical staff report to the Program Manager. The Program Manager reviews and approves program and project staff assignments; coordinates resource needs and forecasts with administrative managers; and monitors program and project expenditures, accruals, funding, deliveries, notifications, invoices, and payments.

The MTS Program Manager is responsible for the following specific duties:

- Directing the MTS Program and project teams by delegation of authority; directives; personnel meetings regarding quality of work, resource allocations and forecasts, project technical approaches, budgets, schedules, progress, costs, and issues; adherence to DOE Orders and environmental regulations; and adherence to ES, Parsons, program, and project plans, procedures, and quality requirements;
- Functioning as the primary Parsons/ES contact with EG&G program management, and periodically reporting on activities and ensuring compliance with the subcontract and with Parsons/ES procedures for task order subcontract reviews and approvals;
- Directing the preparation and ensuring training and compliance with the MTS Program Management Plan, Quality Assurance Program Plan, Program Health and Safety Plan, and Project Procedures;
- Implementing the ES Quality Improvement Process for the program;
- Approving all proposals, work plans, budgets, schedules, technical reports, studies, and deliverable work products;
- Developing periodic progress reports monitoring performance and implementing corrective actions as required;

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- Reviewing facility and personnel resource allocations, developing forecasts, and coordinating program and project requirements; and
- Ensuring technical adequacy of all program and project activities through personal involvement at key meetings and status reviews, and through timely review of in-process work products and final work products prior to delivery.

Deputy Program Manager. The Deputy Program Manager supports the program manager and is responsible for the following specific duties:

- Coordinating the activities, personnel assignments, technical reviews, and production of deliverables among the various ongoing projects and with the various assigned project managers;
- Working with the technical directors/reviewers assigned to projects to ensure that appropriate technical reviews are performed and that quality reviews are completed and appropriately documented;
- Establishing and maintaining the program technical data base and technical resource files;
- Reviewing and monitoring the technical quality of all work for consistency and technical adequacy, application of appropriate methodologies, and compliance with program and project technical requirements;
- Performing technical audits of project work;
- Coordinating the application of corporate technical resources as necessary in support of the program and projects;
- Instituting technology development programs, personnel development programs, and training to maintain personnel and methodologies current with industry and state-of-the-art technological developments; and
- Promoting and supporting program and personnel participation in technical societies, associations, and conferences, including assisting in the preparation of presentations and technical papers and reports.

Quality Assurance Manager. The MTS Program Quality Assurance Manager implements the requirements of the MTS Quality Assurance Program Plan, and ensures compliance with the applicable portions of ANSI/ASME NQA-1 and DOE Order 5700.6C. The Quality Assurance Manager is responsible for the following specific duties:

- Conducting training on the quality assurance requirements;
- Supervising the independent surveillance and audit of program and project activities for compliance with policy, objectives, procedures, and requirements;
- Documenting compliance and corrective action activities;
- Performing quality-related activities independent of the program and project personnel responsible for the performance of the work;
- Coordinating with the MTSB Program Manager; and
- Reporting to the Parsons (Corporate) Manager of Quality Assurance

Regulatory Compliance Manager. The MTS Program Regulatory Compliance Manager reports to the Program Manager and is responsible for developing and reviewing project deliverables and/or work products involving DOE Orders and regulatory compliance, (particularly Applicable or Relevant and Appropriate Requirements [ARARs]), including safety assessments/analyses, permit compliance documentation, or CO compliance documentation; and for identifying and evaluating the potential impact of federal and state legislative and regulatory developments on the MTS program activities.

Health and Safety Manager. The MTS Program Health and Safety Manager reports to the Program Manager and is responsible for developing, maintaining, and monitoring compliance of the MTS Program Health and Safety Plan; reviewing and approving project health and safety procedures for compliance with EG&G requirements and the MTS PMP; monitoring and coordinating developments in health and safety requirements; and reviewing work products involving industrial and nuclear health and safety. The health and safety manager is also responsible for maintaining records of personnel training and health monitoring, and for performing health and safety audits.

OU4 Phase II RFI/RI Project Manager. The OU4 Phase II RFI/RI Project Manager is responsible for the management and coordination of the task activities, and for the development and adherence to project procedures in accordance with the MTS PMP. The OU4 Phase II RFI/RI Project Manager participates in the development of project and subtask budgets, schedules, and deliverable quality objectives, and develops the work plans for meeting the OU4 Phase II RFI/RI objectives. The OU4 Phase II RFI/RI Project Manager is responsible for the following specific duties:

- Directing the activities of the project team, including technical personnel and others responsible to the project manager for performance of the work;

- Representing Parsons/ES, and acting as the principal point of contact with the assigned EG&G Contract Technical Representative (CTR);
- Providing work product quality objectives to the project team;
- Directing the activities of lower-tier subcontractors in the performance of specific assignments for the project, monitoring subcontractor performance, reviewing subcontractor invoices for compliance with requirements, and approving payments;
- Maintaining project performance reporting, and coordinating status information with the MTS Program Manager for inclusion in the program reports;
- Reviewing and analyzing project performance, implementing corrective actions required to maintain budgets and schedules, monitoring resource allocations, and coordinating project needs with the Program Manager;
- Complying with the MTS Quality Assurance Program Plan, Program Health and Safety Plan, and other program requirements applicable to the project;
- Participating in the ES Quality Improvement Process, and applying improvements to MTS program and project activities; and
- Maintaining project documentation, including minutes of all meetings, records of telephone conversations, and confirmation notes of significant verbal instructions or directions received from EG&G.

Technical Reviewers. Each task order subcontract will be assigned one or more technical reviewers. Technical reviewers are senior staff with demonstrated expertise and experience in particular technical areas. The OU4 Phase II RFI/RI Technical reviewers receive authority from the MTS Program Manager, and are responsible for:

- Working with the OU4 Phase II RFI/RI Project Manager to develop a plan for peer review of the technical work;
- Assisting the OU4 Phase II RFI/RI Project Manager in facilitating technical transfer and support between other projects and ES offices;
- Providing troubleshooting assistance, if required;
- Ensuring that project control procedures and planned peer reviews are implemented and completed as required; and
- Signing the ES Certification of Completion upon conclusion of the project, assuring that the work was completed satisfactorily.

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Technical Lead. Technical Leads report to the project manager and assist the project manager in the aspects of the task delegated to them. The OU4 Phase II RFI/RI Technical Lead is primarily responsible for the development, execution, supervision, and coordination of the technical aspects of the assigned OU4 Phase II RFI/RI work. The Technical Lead may also be assigned specific management duties by the OU4 Phase II RFI/RI Project Manager to assist in the control of the OU4 Phase II RFI/RI project.

Technical Support Staff. The technical support staff is responsible for data review; technology applications; performance of task assignments; and development of reviews, evaluations, plans, procedures, analyses, reports, and documentation. The technical support staff report to the OU4 Phase II RFI/RI Project Manager or Technical Lead for performance of assigned work on a specific task. The duties of the technical support staff include providing quality work that meets all of the assigned objectives; maintaining schedules; completing deliverables; complying with COs, rules, regulations, and codes; and applying current technology, processes, and procedures.

Project Controls Manager. The Project Controls Manager reports to the MTS Program Manager and is responsible for assisting the Program Manager and the project manager in the development of contract and task work breakdown structures; task proposals; task resource budgets, schedules, and plans, cost and schedule performance reports; contract reports, notifications, and notices; and project summary and status reports.

1.2.1.2 Communications and Interfaces

- a. **Responsibilities.** The MTS Program Manager is the primary technical and administrative interface with EG&G. Each project manager is responsible for maintaining the communication interface for the task with the designated EG&G CTR who is identified in the approved task order subcontract. The responsibilities for clear and complete communication and coordination with EG&G rest with all of the MTS Program and project staff.
- b. **Reviews and Approvals.** The MTS Program Manager and OU4 Phase II RFI/RI Project Manager are responsible for ensuring that the required EG&G reviews and approvals are obtained when required for contract and task documentation. EG&G review and approval requirements for task deliverables will be identified in the task order subcontract. EG&G may also approve such aspects of the work as the technical approaches, design solutions, and specifications. EG&G approval does not relieve Parsons/ES from performance of the work in accordance with the MTS and task order requirements.
- c. **Program Communications.** The task order format of the MTS makes program and project communications and correspondence very important. All communications with EG&G, lower-tier subcontractors, and vendors shall be documented. The MTS Program Manager is responsible for ensuring documentation of program

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correspondence. The OU4 Phase II RFI/RI Project Manager, and designated task managers, are responsible for ensuring documentation of project and subtask communications.

- d. Client Communications. The MTS client is EG&G Rocky Flats, Inc., a prime contractor to the DOE. The EG&G mailing address is:

EG&G Rocky Flats, Inc.
Rocky Flats Plant, Bldg. 080
P.O. Box 464
Golden, Colorado 80402-0464

All correspondence will be directed to EG&G. No correspondence shall be directed or distributed to the DOE or to regulatory agencies without explicit request and approval of EG&G.

EG&G designates a subcontract administrator and a CTR for each task order. All contractual correspondence shall be directed to the attention of the designated subcontract administrator. Technical correspondence shall be directed to the designated CTR, with a copy distributed to the subcontract administrator. For the OU4 Phase II RFI/RI, the designated EG&G contacts are as follows:

Subcontract Administrator, Gabriele Greene

Contract Technical Representative, Randy T. Ogg

The OU4 Phase II RFI/RI effort is being conducted in the ES-Denver office. The program and project mailing address is as follows:

Engineering-Science, Inc., a unit of
Parsons Environmental Services, Inc.
1700 Broadway, Suite 900
Denver, Colorado 80290
Telephone: (303) 831-8100
FAX: (303) 831-8208

Program Manager:	Richard H. Wilkinson, P.E.
Project Manager:	Peter J. Holland, P.E.
Project Technical Lead:	Richard Henry

1.2.2 Work Breakdown Structure

The project Work Breakdown Structure (WBS) is initially developed during proposal preparation and is confirmed during negotiation. The WBS is developed by relating elements of work to each other and to work products. WBS elements are defined subtask scopes of work

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with identifiable budgets and schedules. The extent, detail, and levels of the WBS depend on the complexity of the work scope and the detail required to adequately define independently manageable elements of work. The levels of detail in the WBS will be expanded as required in support of specific planned activities at their outset.

The WBS and responsibility assignments are outlined by the MTS Program Manager and finalized by the Project Controls Manager in coordination with the OU4 Phase II RFI/RI Project Manager based on task order negotiations. The Project Manager is responsible for maintaining the WBS current with the task order scope of work. Task order changes which are authorized by EG&G may result in a required change to the WBS. The WBS shall not be changed except as reviewed and approved by EG&G.

The current OU4 Phase II RFI/RI IAG WBS is presented in Figure 1-3. A detailed description of the cost components and technical work scope for selected WBS elements are contained in the WBS Dictionary included in Appendix A of this PIP. In general, only those most indented WBS elements assigned to Parsons/ES, or directly affecting an assigned Parsons/ES deliverable, maintain an entry in the WBS Dictionary. The specification of WBS elements to be included in the WBS Dictionary was coordinated with the OU4 EG&G CTR and staff.

In addition, a graphic representation of the WBS is included as Appendix B. The WBS graphic clearly delineates the Control Account WBS elements, the various indented levels of all WBS elements, and the logical relationships, or ties, maintained between individual OU4 Phase II RFI/RI WBS elements.

1.2.3 Responsibility Matrix

The matrix of responsibilities of the MTS Program and OU4 Phase II RFI/RI Project personnel is illustrated in Figure 1-4.

The integration of the WBS with the OU4 Phase II RFI/RI project organization, results in a WBS Responsibility Matrix. This matrix identifies the organizational elements responsible for the work identified within each element of the WBS. The WBS Responsibility Matrix is shown on Figure 1-5.

1.3 Management Control System

The Management Control System for the OU4 Phase II RFI/RI has been designed to incorporate the fundamental requirements of control necessary to manage the project effectively. The system is based on the use of DOE Notice 4700.5 guidelines in a graded approach reflecting the degree of project technical, schedule, and cost risks.

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PROJECT TITLE/PARTICIPANT									DATE		ID NUMBER		
OU4 PHASE II RFI/RI IAG REQUIREMENTS									08/19/94		MTS 343780GG3		
LINE NO.	WBS ELEMENTS								WBS ELEMENT CODE	ACTIVITY # P3	CONTRACT #		
	INDENTURE LEVEL												
	1	2	3	4	5	6	7	8	TITLE				
1	X								PHASE II RFI/RI PROJECT				1.0
2		X							DIRECT PROJECT SUPPORT				1.1
3			X						Project Management/Controls				1.1.1
4				X					Weekly Meetings/Reporting				1.1.1.1
5				X					Project Status Reporting				1.1.1.2
6				X					Quality Assurance				1.1.1.3
7				X					Community Relations/Regulatory Support				1.1.1.4
8	X								TECHNICAL PROGRAM SUPPORT				1.2
9		X							Technical Consultation				1.2.1
10			X						Option Analysis				1.2.2
11			X						Ground Water Characterization Support				1.2.3
12	X								PROJECT IMPLEMENTATION PLAN				1.3
13			X						Master Schedule				1.3.1
14			X						Project Management Plan				1.3.2
15	X								PHASE II WORK PLAN				1.4
16		X							Work Plan Preparation				1.4.1
17			X						Project Scoping				1.4.1.1
18			X						WP Development				1.4.1.2
19				X					Data Evaluation				1.4.1.2.1
20				X					Data Quality Objectives				1.4.1.2.2
21				X					Field Sampling Plan				1.4.1.2.3
22				X					Baseline Risk Assessment Plan				1.4.1.2.4
23					X				Human Health Risk Assessment				1.4.1.2.4.1
24					X				Environmental Evaluation				1.4.1.2.4.2
25				X					Quality Assurance				1.4.1.2.5
26				X					Standard Operating Procedures				1.4.1.2.6
27			X						Review Cycle				1.4.2
28			X						Draft (Roundtable) Work Plan				1.4.2.1
29				X					Transmittal – Draft Work Plan				1.4.2.1.1
30				X					Review & Comment – Draft Work Plan				1.4.2.1.2
31				X					Comment Resolution – Draft Work Plan				1.4.2.1.3
32				X					Incorporation of Comments – Draft Work Plan				1.4.2.1.4
33				X					Draft Final Work Plan				1.4.2.2
34				X					Transmittal – Draft Final Work Plan				1.4.2.2.1
35				X					Review & Comment – Draft Final Work Plan				1.4.2.2.2
36				X					Comment Resolution – Draft Final Work Plan				1.4.2.2.3
37				X					Incorporation of Comments – Draft Final Work Plan				1.4.2.2.4
38				X					Final Work Plan				1.4.2.3
39				X					Transmittal – Final Work Plan				1.4.2.3.1
40				X					Review/Approval – Final Work Plan				1.4.2.3.2
41	X								WORK PLAN IMPLEMENTATION				1.5
42			X						Pre– Field Mobilization				1.5.1
43				X					Health & Safety Plan				1.5.1.1
44				X					Implementation/Support Plan				1.5.1.2
45				X					Subcontractor Training				1.5.1.3
46				X					Equipment & Supplies				1.5.1.4
47				X					EG&G Permit Preparation & Submittal				1.5.1.5
48				X					EG&G Permit Approval				1.5.1.6
49				X					NEPA				1.5.1.7
50					X				Categorical Exclusion				1.5.1.7.1
51					X				Floodplain				1.5.1.7.2
52			X						Site Management				1.5.2
53				X					Field Operations Management				1.5.2.1
54				X					Subcontractor Site Management				1.5.2.1.1
55					X				Site Integration				1.5.2.1.1.1
56						X			Personnel Management				1.5.2.1.1.1.1
57						X			Equipment & Supplies Management				1.5.2.1.1.1.2
58						X			Field Schedule Maintenance				1.5.2.1.1.1.3
59					X				Site Coordination				1.5.2.1.1.2
60					X				Escorts				1.5.2.1.1.3

FIGURE 1-3 OU4 PHASE II RFI/RI
IAG REQUIREMENTS WORK BREAKDOWN STRUCTURE

PROJECT TITLE/PARTICIPANT										DATE		ID NUMBER	
OU4 PHASE II RFI/RI IAG REQUIREMENTS										08/19/94		MTS 343780GG3	
LINE NO.	WBS ELEMENTS								WBS ELEMENT CODE	ACTIVITY # P3	CONTRACT #		
	INDENTURE LEVEL												
	1	2	3	4	5	6	7	8	TITLE				
61						X			Waste Management Support	1.5.2.1.1.4			
62					X				Plan of the Day(POD) Meetings	1.5.2.1.2			
63				X					Sample Management	1.5.2.2			
64					X				Material Transfer Tag	1.5.2.2.1			
65					X				Database Management (RFEDS)	1.5.2.2.2			
66				X					Field Quality Assurance	1.5.2.3			
67			X						Laboratory Analysis	1.5.3			
68				X					Laboratory Analysis	1.5.3.1			
69					X				Protected Area	1.5.3.1.1			
70						X			Rad - Protected Area	1.5.3.1.1.1			
71						X			Non-Rad - Protected Area	1.5.3.1.1.2			
72					X				Non-Protected Area	1.5.3.1.2			
73						X			Rad - Non-Protected Area	1.5.3.1.2.1			
74						X			Non-Rad - Non-Protected Area	1.5.3.1.2.2			
75					X				Floodplain	1.5.3.1.3			
76						X			Rad - Floodplain	1.5.3.1.3.1			
77						X			Non-Rad - Floodplain	1.5.3.1.3.2			
78				X					Validation	1.5.3.2			
79			X						Field Activities	1.5.4			
80				X					Conductivity/Field Nitrate Survey	1.5.4.1			
81				X					Geophysics	1.5.4.2			
82					X				Seismic Refraction	1.5.4.2.1			
83					X				GPR	1.5.4.2.2			
84					X				Electromagnetic	1.5.4.2.3			
85					X				Downhole Geophysics	1.5.4.2.4			
86				X					Geoprobe Program	1.5.4.3			
87					X				Geoprobe Mobilization	1.5.4.3.1			
88					X				Geoprobe Drilling	1.5.4.3.2			
89				X					Administrative Requirements	1.5.4.4			
90					X				Data Compilation/Analysis (TM #5)	1.5.4.4.1			
91					X				Tech Memo #5	1.5.4.4.2			
92						X			Preparation - TM #5	1.5.4.4.2.1			
93						X			Review Cycle - TM #5	1.5.4.4.2.2			
94							X		Draft - TM #5	1.5.4.4.2.2.1			
95								X	Transmittal - Draft TM #5	1.5.4.4.2.2.1.1			
96								X	Review & Comment - Draft TM #5	1.5.4.4.2.2.1.2			
97								X	Comment Resolution - Draft TM #5	1.5.4.4.2.2.1.3			
98								X	Incorporation of Comments - Draft TM #5	1.5.4.4.2.2.1.4			
99							X		Draft Final - TM #5	1.5.4.4.2.2.2			
100								X	Transmittal - Draft Final TM #5	1.5.4.4.2.2.2.1			
101								X	Review & Comment - Draft Final TM #5	1.5.4.4.2.2.2.2			
102								X	Comment Resolution - Draft Final TM #5	1.5.4.4.2.2.2.3			
103								X	Incorporation of Comments - Draft Final TM #5	1.5.4.4.2.2.2.4			
104							X		Final - TM #5	1.5.4.4.2.2.3			
105								X	Transmittal - Final TM #5	1.5.4.4.2.2.3.1			
106								X	Review/Approval - Final TM #5	1.5.4.4.2.2.3.2			
107					X				Data Compilation/Analysis (TM #6)	1.5.4.4.3			
108					X				Tech Memo #6	1.5.4.4.4			
109						X			Preparation - TM #6	1.5.4.4.4.1			
110						X			Review Cycle - TM #6	1.5.4.4.4.2			
111							X		Draft - TM #6	1.5.4.4.4.2.1			
112								X	Transmittal - Draft TM #6	1.5.4.4.4.2.1.1			
113								X	Review & Comment - Draft TM #6	1.5.4.4.4.2.1.2			
114								X	Comment Resolution - Draft TM #6	1.5.4.4.4.2.1.3			
115								X	Incorporation of Comments - Draft TM #6	1.5.4.4.4.2.1.4			
116							X		Draft Final - TM #6	1.5.4.4.4.2.2			
117								X	Transmittal - Draft Final TM #6	1.5.4.4.4.2.2.1			
118								X	Review & Comment - Draft Final TM #6	1.5.4.4.4.2.2.2			
119								X	Comment Resolution - Draft Final TM #6	1.5.4.4.4.2.2.3			
120								X	Incorporation of Comments - Draft Final TM #6	1.5.4.4.4.2.2.4			

**FIGURE 1-3 OU4 PHASE II RFI/RI
IAG REQUIREMENTS WORK BREAKDOWN STRUCTURE**

PROJECT TITLE/PARTICIPANT										DATE		ID NUMBER	
OU4 PHASE II RFI/RI IAG REQUIREMENTS										08/19/94		MTS 343780GG3	
LINE NO.	WBS ELEMENTS								WBS ELEMENT CODE	ACTIVITY # P3	CONTRACT #		
	INDENTURE LEVEL												
	1	2	3	4	5	6	7	8	TITLE				
121							X		Final – TM #6	1.5.4.4.4.2.3			
122								X	Transmittal – Final TM #6	1.5.4.4.4.2.3.1			
123								X	Review/Approval – Final TM #6	1.5.4.4.4.2.3.2			
124				X					Drilling Activities	1.5.4.5			
125					X				Mobilization	1.5.4.5.1			
126					X				Drill	1.5.4.5.2			
127						X			Protected Area	1.5.4.5.2.1			
128							X		Drill – Protected Area	1.5.4.5.2.1.1			
129							X		Well Construction – Protected Area	1.5.4.5.2.1.2			
130							X		Develop – Protected Area	1.5.4.5.2.1.3			
131							X		Sample – Protected Area	1.5.4.5.2.1.4			
132						X			Non–Protected Area	1.5.4.5.2.2			
133							X		Drill – Non–Protected Area	1.5.4.5.2.2.1			
134							X		Well Construction – Non–Protected Area	1.5.4.5.2.2.2			
135							X		Develop – Non–Protected Area	1.5.4.5.2.2.3			
136							X		Sample – Non–Protected Area	1.5.4.5.2.2.4			
137						X			Floodplain	1.5.4.5.2.3			
138							X		Drill – Floodplain	1.5.4.5.2.3.1			
139							X		Well Construction – Floodplain	1.5.4.5.2.3.2			
140							X		Develop – Floodplain	1.5.4.5.2.3.3			
141							X		Sample – Floodplain	1.5.4.5.2.3.4			
142				X					Corelogging	1.5.4.6			
143				X					Aquifer Testing	1.5.4.7			
144					X				Slug Tests	1.5.4.7.1			
145					X				Pump Tests	1.5.4.7.2			
146				X					Interceptor Trench System (ITS) Characterization	1.5.4.8			
147					X				Flow Meters	1.5.4.8.1			
148					X				Water Level Monitoring	1.5.4.8.2			
149					X				Water Samples	1.5.4.8.3			
150				X					Well Abandonment	1.5.4.9			
151					X				Piezometers	1.5.4.9.1			
152					X				Vadose Zone Characteristics	1.5.4.9.2			
153					X				Vadose Zone Monitoring	1.5.4.9.3			
154				X					Surface Water Sampling	1.5.4.10			
155					X				Groundwater Seeps	1.5.4.10.1			
156					X				Surface Waters	1.5.4.10.2			
157						X			Footing Drains	1.5.4.10.2.1			
158						X			Drain Ditch	1.5.4.10.2.2			
159						X			Building 779 Storm Drain	1.5.4.10.2.3			
160						X			Bowman's Pond	1.5.4.10.2.4			
161	X								PHASE II RFI/RI REPORT	1.6			
162		X							Database Management	1.6.1			
163			X						GIS	1.6.1.1			
164				X					Analytical Data/Input	1.6.1.2			
165				X					Field Logs & Reports	1.6.1.3			
166		X							Data Evaluation/Report	1.6.2			
167			X						Preparation RFI/RI Report	1.6.2.1			
168				X					Introduction	1.6.2.1.1			
169				X					Physical Characteristics of Site	1.6.2.1.2			
170				X					Summary of Field Investigation	1.6.2.1.3			
171				X					Nature & Extent of Contamination	1.6.2.1.4			
172				X					Contaminant Fate & Transport	1.6.2.1.5			
173				X					Baseline Risk Assessment	1.6.2.1.6			
174					X				Evaluate Ecological Risks	1.6.2.1.6.1			
175					X				Evaluate Human Risks	1.6.2.1.6.2			
176					X				Uncertainty Analysis	1.6.2.1.6.3			
177				X					Summary and Conclusions	1.6.2.1.7			
178				X					Appendices	1.6.2.1.8			
179				X					Review Cycle	1.6.2.2			
180					X				Draft RFI/RI Report	1.6.2.2.1			

**FIGURE 1-3 OU4 PHASE II RFI/RI
IAG REQUIREMENTS WORK BREAKDOWN STRUCTURE**

PROJECT TITLE/PARTICIPANT										DATE		ID NUMBER	
OU4 PHASE II RFI/RI IAG REQUIREMENTS										08/19/94		MTS 343780GG3	
LINE NO.	WBS ELEMENTS								WBS ELEMENT CODE	ACTIVITY # P3	CONTRACT #		
	INDENTURE LEVEL												
	1	2	3	4	5	6	7	8	TITLE				
181						X			Transmittal – Draft RFI/RI Report	1.6.2.2.1.1			
182						X			Review & Comment – Draft RFI/RI Report	1.6.2.2.1.2			
183						X			Comment Resolution – Draft RFI/RI Report	1.6.2.2.1.3			
184						X			Incorporation of Comments – Draft RFI/RI Report	1.6.2.2.1.4			
185					X				Draft Final RFI/RI Report	1.6.2.2.2			
186						X			Transmittal – Draft Final RFI/RI Report	1.6.2.2.2.1			
187						X			Review & Comment – Draft Final RFI/RI Report	1.6.2.2.2.2			
188						X			Comment Resolution – Draft Final RFI/RI Report	1.6.2.2.2.3			
189						X			Incorporation of Comments – Draft Final RFI/RI Report	1.6.2.2.2.4			
190					X				Final RFI/RI Report	1.6.2.2.3			
191						X			Transmittal – Final RFI/RI Report	1.6.2.2.3.1			
192						X			Review/Approval – Final RFI/RI Report	1.6.2.2.3.2			
193			X						Baseline Risk Assessment	1.6.3			
194				X					Environmental Evaluation	1.6.3.1			
195				X					Human Health Risk Assessment (HHRA)	1.6.3.2			
196					X				Tech Memo #1 – Exposure Pathways	1.6.3.2.1			
197						X			Preparation – TM #1	1.6.3.2.1.1			
198						X			Review Cycle – TM #1	1.6.3.2.1.2			
199							X		Draft – TM #1	1.6.3.2.1.2.1			
200							X		Transmittal – Draft TM #1	1.6.3.2.1.2.1.1			
201							X		Review & Comment – Draft TM #1	1.6.3.2.1.2.1.2			
202							X		Comment Resolution – Draft TM #1	1.6.3.2.1.2.1.3			
203							X		Incorporation of Comments – Draft TM #1	1.6.3.2.1.2.1.4			
204							X		Draft Final – TM #1	1.6.3.2.1.2.2			
205							X		Transmittal – Draft Final TM #1	1.6.3.2.1.2.2.1			
206							X		Review & Comment – Draft Final TM #1	1.6.3.2.1.2.2.2			
207							X		Comment Resolution – Draft Final TM #1	1.6.3.2.1.2.2.3			
208							X		Incorporation of Comments – Draft Final TM #1	1.6.3.2.1.2.2.4			
209							X		Final – TM #1	1.6.3.2.1.2.3			
210							X		Transmittal – Final TM #1	1.6.3.2.1.2.3.1			
211							X		Review/Approve – Final TM #1	1.6.3.2.1.2.3.2			
212					X				Tech Memo #2 – Exposure Assessment	1.6.3.2.2			
213						X			Preparation – TM #2	1.6.3.2.2.1			
214						X			Review Cycle – TM #2	1.6.3.2.2.2			
215							X		Draft – TM #2	1.6.3.2.2.2.1			
216							X		Transmittal – Draft TM #2	1.6.3.2.2.2.1.1			
217							X		Review & Comment – Draft TM #2	1.6.3.2.2.2.1.2			
218							X		Comment Resolution – Draft TM #2	1.6.3.2.2.2.1.3			
219							X		Incorporation of Comments – Draft TM #2	1.6.3.2.2.2.1.4			
220							X		Draft Final – TM #2	1.6.3.2.2.2.2			
221							X		Transmittal – Draft Final TM #2	1.6.3.2.2.2.2.1			
222							X		Review & Comment – Draft Final TM #2	1.6.3.2.2.2.2.2			
223							X		Comment Resolution – Draft Final TM #2	1.6.3.2.2.2.2.3			
224							X		Incorporation of Comments – Draft Final TM #2	1.6.3.2.2.2.2.4			
225							X		Final – TM #2	1.6.3.2.2.2.3			
226							X		Transmittal – Final TM #2	1.6.3.2.2.2.3.1			
227							X		Review/Approve – Final TM #2	1.6.3.2.2.2.3.2			
228					X				Tech Memo #3 – Contaminants of Concern	1.6.3.2.3			
229						X			Preparation – TM #3	1.6.3.2.3.1			
230						X			Review Cycle – TM #3	1.6.3.2.3.2			
231							X		Draft – TM #3	1.6.3.2.3.2.1			
232							X		Transmittal – Draft TM #3	1.6.3.2.3.2.1.1			
233							X		Review & Comment – Draft TM #3	1.6.3.2.3.2.1.2			
234							X		Comment Resolution – Draft TM #3	1.6.3.2.3.2.1.3			
235							X		Incorporation of Comments – Draft TM #3	1.6.3.2.3.2.1.4			
236							X		Draft Final – TM #3	1.6.3.2.3.2.2			
237							X		Transmittal – Draft Final TM #3	1.6.3.2.3.2.2.1			
238							X		Review & Comment – Draft Final TM #3	1.6.3.2.3.2.2.2			
239							X		Comment Resolution – Draft Final TM #3	1.6.3.2.3.2.2.3			
240							X		Incorporation of Comments – Draft Final TM #3	1.6.3.2.3.2.2.4			

**FIGURE 1-3 OU4 PHASE II RFI/RI
IAG REQUIREMENTS WORK BREAKDOWN STRUCTURE**

PROJECT TITLE/PARTICIPANT										DATE		ID NUMBER	
OU4 PHASE II RFI/RI IAG REQUIREMENTS										08/19/94		MTS 343780GG3	
LINE NO.	WBS ELEMENTS								WBS ELEMENT CODE	ACTIVITY # P3	CONTRACT #		
	INDENTURE LEVEL												
	1	2	3	4	5	6	7	8	TITLE				
241							X		Final – TM #3	1.6.3.2.3.2.3			
242								X	Transmittal – Final TM #3	1.6.3.2.3.2.3.1			
243								X	Review/Approve – Final TM #3	1.6.3.2.3.2.3.2			
244					X				Tech Memo #4 – Toxicity Assessment	1.6.3.2.4			
245						X			Preparation – TM #4	1.6.3.2.4.1			
246						X			Review Cycle – TM #4	1.6.3.2.4.2			
247							X		Draft – TM #4	1.6.3.2.4.2.1			
248								X	Transmittal – Draft TM #4	1.6.3.2.4.2.1.1			
249								X	Review & Comment – Draft TM #4	1.6.3.2.4.2.1.2			
250								X	Comment Resolution – Draft TM #4	1.6.3.2.4.2.1.3			
251								X	Incorporation of Comments – Draft TM #4	1.6.3.2.4.2.1.4			
252							X		Draft Final – TM #4	1.6.3.2.4.2.2			
253								X	Transmittal – Draft Final TM #4	1.6.3.2.4.2.2.1			
254								X	Review/Comment – Draft Final TM #4	1.6.3.2.4.2.2.2			
255								X	Comment Resolution – Draft Final TM #4	1.6.3.2.4.2.2.3			
256								X	Incorporation of Comments – Draft Final TM #4	1.6.3.2.4.2.2.4			
257							X		Final – TM #4	1.6.3.2.4.2.3			
258								X	Transmittal – Final TM #4	1.6.3.2.4.2.3.1			
259								X	Review/Approval – Final TM #4	1.6.3.2.4.2.3.2			

FIGURE 1-3 OU4 PHASE II RFI/RI
IAG REQUIREMENTS WORK BREAKDOWN STRUCTURE

WBS No.	Work Breakdown Structure Description	QA Manager	Regulatory Compliance Manager	Health and Safety Manager	Project Manager	Technical Lead	Project Controls Manager
1.0	PHASE II RFI/RI PROJECT				CAM		
1.1	DIRECT PROJECT SUPPORT				CAM		
1.1.1	Project Management/Controls				Lead		
1.1.1.1	Weekly Meetings/Reporting				Lead		
1.1.1.2	Project Status Reporting						Lead
1.1.1.3	Quality Assurance	Lead					
1.1.1.4	Community Relations/Regulatory Spt		Lead				
1.3	PROJECT IMPLEMENTATION PLAN				CAM		
1.3.1	Master Schedule						Lead
1.3.2	Project Management Plan				Lead		
1.4	PHASE II WORK PLAN				CAM		
1.4.1	Work Plan Preparation					Lead	
1.4.2	Work Plan Review Cycle				Lead		
1.5	WORK PLAN IMPLEMENTATION				CAM		
1.5.1	Pre-Field Mobilization				CAM		
1.5.1.1	Health & Safety Plan					Lead	
1.5.1.2	Implementation/Support Plan					Lead	
1.5.2	Site Management				CAM		
1.5.4	Field Activities				CAM		
1.5.4.1	Conductivity/Field Nitrate Survey					Lead	
1.5.4.2	Geophysics					Lead	
1.5.4.3	Geoprobe Program					Lead	
1.5.4.4	Administrative Requirements					Lead	
1.5.4.5	Drilling Activities					Lead	
1.5.4.6	Corelogging					Lead	
1.5.4.7	Aquifer Testing					Lead	
1.6	PHASE II RFI/RI REPORT				CAM		
1.6.1	Database Management				CAM		
1.6.2	Data Evaluation/Report				CAM		
1.6.2.1	Preparation RFI/RI Report					Lead	
1.6.2.2	Review Cycle				Lead		
1.6.3	Baseline Risk Assessment				CAM		
1.6.3.1	Environmental Evaluation					Lead	
1.6.3.2	Human Health Risk Assessment					Lead	

Control Account

CAM – Control Account Manager

Lead – Activity Subtask Leader

FIGURE 1-4 OU4 PHASE II RFI/RI
PROJECT RESPONSIBILITY MATRIX

Item No.	Responsibility Description	Program Manager	Deputy Program Manager	QA Manager	Regulatory Compliance Manager	Health and Safety Manager	Project Manager	Technical Reviewers	Project Controls Manager	All Project Staff
1	Program Plans and Procedures	X								
2	Project Specific Procedures	A					X			
3	Compliance with contract	X					X			
4	Compliance with requirements	X					X			X
5	Quality performance	X					X			X
6	Overall program management	X								
7	Overall technical authority	X								
8	Overall administrative authority	X								
9	Contract client interface	X								
10	Staff/monitor the work	X					X			
11	Manage/control project operations		X							
12	Coordination between projects		X							
13	Technical/quality reviews		X							
14	Personnel technical development		X							
15	Implementing quality programs			X						
16	Surveillance and audit			X						
17	Program regulatory compliance				X					
18	Program regulatory support				X					
19	Project regulatory support				X		X			
20	Program Health and Safety Plan	A				X				
21	Project Health and Safety Plan					X	A			
22	Program health and safety support					X	X			
23	Project health and safety support					X				
24	Personnel monitoring and records					X				
25	Project Management						X			
26	Project technical authority						X			
27	Project administrative authority						X			
28	Technical client interface						X			
29	Cost/schedule/quality of work						X			
30	Project technical support						X	X		
31	Project peer reviews						X	X		
32	EG&G reviews and approvals	X					X			
33	Project correspondence distribution						X			
34	Project WBS	A					X			
35	Project WBS maintenance						X			
36	Schedule development	X					X		X	
37	Schedule maintenance						X		X	
38	Program reporting	X							X	
39	Reporting methodologies	A					A		X	
40	Project reporting	A					X		X	
41	Configuration management	X					X			
42	Change control	X					X			
43	QA Program Plan			X						
44	QAPP Implementation	X					X			
45	Quality Improvement Process	X					X			

X Direct Responsibility

A Approval

**FIGURE 1-5 OU4 PHASE II RFI/RI
WBS RESPONSIBILITY MATRIX**

1.3.1 Work Authorization

All work will proceed only upon receipt of formal authorization by EG&G. EG&G authorization is provided by means of a Work Authorization Letter containing subcontract authorization to proceed and allocated funding.

Parsons/ES initiation of authorized work will be documented via a Task Order Work Plan to the OU4 Phase II RFI/RI project team specifying the work assignments and requisite instructions for various WBS activities. The work authorization IOC will describe the specific scope of work to be performed, identify the allocated budget, and identify milestones for activity performance. It is initiated, approved, and issued by OU4 Phase II RFI/RI Project Manager with assistance from the Project Controls Manager.

Lower-tier subcontractors to Parsons/ES are authorized to perform work by authorization letter, identifying the scope, schedule milestones, authorized personnel, and budget for the activity.

1.3.2 Budgeting and Scheduling

A hierarchy of schedules is used to plan and manage the work. The project Milestone Schedule (Level 1) is used to identify and monitor project milestones as identified in the EG&G Statement of Work. The project Master Schedule (Level 2) identifies the sequences, logical relationships, and durations of the various tasks and subtasks identified by the WBS. The Master Schedule includes all major activities and constraints, and is the primary tool for schedule control, progress reporting, variance analysis, and schedule forecasting. The Master Schedule will be maintained using *Primavera Project Planner (P3)/Primavera for Windows* for integration with the EG&G scheduling system.

Activity Schedules (Levels 3 and 4) will be established incorporating activity logic and constraints. Activity Schedules are organized within each task (Control Account) of the WBS, and are the planning and performance monitoring tools of the responsible control account manager. Activity Schedules will also be maintained using for *Primavera Project Planner (P3)/Primavera for Windows* for efficient planning and statusing of the work. The Activity Schedules include the time-phased manhour and resource budgets for the work, and are the integration level for the cost and schedule baselines.

Cost baselines are planned and established at the activity level. The cost baseline for each Control Account is derived from the time-phased manhour and resource budgets for the activities. Resource categories and unit rates are consistent with the subcontract. The project cost baseline is the sum of the Control Account budgets. Cost baselines are originally established upon EG&G authorization based on the proposed manhours and resources to perform the work. Cost baselines will be modified to coincide with the results of negotiations and definitization of the task order subcontract. Upon definitization, changes to the cost and schedule baselines will be initiated based on EG&G approval.

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1.3.3 Performance Assessment

Assessment of the performance of Parsons/ES work at the activity level is based on the methodology identified in the EG&G Work Authorization Letter, consistent with the scope and type of effort. Activities are characterized by the earned value technique that is appropriate for the work. Earned value techniques include:

Percent Complete: Progress is measured by periodic assessment of the physical percentage of the activity effort that has been completed.

Milestone: Units of work or individual milestones to be completed within each reporting period are established, along with the budgeted value of the units or milestones. Progress is measured by documented completion of units of work or milestones.

Modified Milestone/Percent Complete: A number of milestones are established during the performance period of the activity. Progress is measured by documented completion of the individual milestones, and by physical percentage of the activity effort completed between milestones. Note that earned value for the activity cannot exceed the value allocated for milestones that are not yet completed.

Level of Effort: Activities such as management and support functions are budgeted for each reporting period, and progress is earned by passage of time.

At the end of each reporting period, the OU4 Phase II RFI/RI Project Manager (as responsible control account manager) provides the activity performance assessments, the Estimate at Completion (EAC), and variance analyses (if required), for each OU4 Phase II RFI/RI Control Account in accordance with the following methodology.

The Budgeted Cost of Work Scheduled (BCWS) for the Control Account is the sum of the time-phased activity budgets. The Budgeted Cost of Work Performed (BCWP) for the Control Account is the sum of the earned values for each activity. Actual costs for Parsons/ES efforts are determined from the accounting system, and are provided at the end of each reporting period. The Actual Cost of Work Performed (ACWP) for each Control Account is the actual cost for Parsons/ES efforts, plus the reported actual costs for subcontractors. The EAC for each Control Account is the sum of the ACWP and the estimate to complete (ETC).

Variances from the planned performance are established for each Control Account. The Schedule Variance (current period and cumulative) is $BCWP - BCWS$. The Cost Variance (current period and cumulative) is $BCWP - ACWP$. The At Completion Variance (cumulative only) is the Budget At Completion (BAC) - EAC. All positive variances are favorable, and negative variances are unfavorable.

Thresholds for variances are established by the EG&G Statement of Work, dated March 31, 1994. Variance analyses are required when Control Account variances exceed $\pm 10\%$ for a

cumulative value and +/- 20% for the period. Variance analyses are developed by the OU4 Phase II RFI/RI Project Manager with support from the Project Control Manager, and shall include the explanation for the variance, forecast impact of the variance (if any), and recommend corrective action to minimize the potential impact to the OU4 Phase II RFI/RI project budget and/or schedule.

1.3.4 Status Reporting

Status reporting for the Phase II OU4 Phase II RFI/RI project will be based on progress assessments of activity schedules. Activity schedule progress will be assessed weekly by the OU4 Phase II RFI/RI Project Manager and summarized for status reporting. Activity milestones will be identified in conjunction with EG&G and summarized for status reporting.

1.3.5 Change Control

Technical clarifications, alternate approaches, or differing methodologies that are within the scope of the subcontract may be initiated by the EG&G Contract Technical Representative (CTR). Recommendations for alternate technical approaches within the subcontract scope that are identified by Parsons/ES shall be forwarded to the EG&G CTR along with technical justification for consideration.

Baseline budgets, schedules, and time-phased budgets can be changed only upon approval and authorization by EG&G. Changes may be identified by Parsons/ES or by EG&G; however, change work shall not be started prior to approval and authorization by the EG&G subcontract administrator. Recommended scope or baseline cost/schedule changes that are identified by Parsons/ES are forwarded to the EG&G CTR, along with technical justification for consideration.

Recommended changes with CTR approval, and/or changes identified by EG&G, are transmitted by the EG&G subcontract administrator to the MTS Program Manager. All changes transmitted by EG&G will be assessed for potential impacts. Changes that will result in cost and/or schedule impacts will be identified. The EG&G subcontract administrator will provide written authorization for all changes that will impact the technical scope, cost, and/or schedule baselines.

1.4 Project Reports

Project reports include weekly project updates and weekly status meetings, Budget Status Reports, Task Order Status Reports, and Accrual Reports.

1.4.1 Weekly Project Updates/Status Meetings

OU4 Phase II RFI/RI Weekly Project Updates are narrative reports of the status of activities during the current week, and planned activities for the following week. Weekly Project Updates

are submitted to the EG&G Project Manager/CTR on the last working day of each week. The narratives should include the status of ongoing activities, identification of problems/potential problems and the status of any problem resolutions or corrective actions, and status of project and activity milestones.

OU4 Phase II RFI/RI Weekly Status Meetings are conducted with the EG&G Project Manager/CTR as requested by EG&G. The Weekly Status Meetings will include the status of activities and milestones, resolutions of problems or issues, and planning for the forecast activities.

1.4.2 Budget Status Reports

OU4 Phase II RFI/RI Budget Status Reports will be submitted to EG&G by the 10th day of each month, reporting the progress and performance for the project through the end of the last week of the previous month. The Budget Status Report will include the current period and cumulative performance assessments and variances for each Control Account, and variance analyses (if required). Performance will also be summarized for the project. Formats for the Budget Status Reports will be as agreed upon with EG&G.

1.4.3 Task Order Status Reports

OU4 Phase II RFI/RI Task Order Status Reports will be submitted to the EG&G subcontract administrator on the 20th of each month, in accordance with the requirements of the Master Task Subcontract (MTS). The Task Order Status Report provides a description and status of the project activities through the current month, and an estimate of the planned project expenditures (accruals) through the end of the current month. The format for the Task Order Status Report is identified in the MTS.

1.4.4 Accrual Report

The OU4 Phase II RFI/RI project will be included on the Monthly Accrual Report required for the MTS. The Accrual Report will be submitted on the 20th of each month, and will report the planned expenditures through the end of the current month. The Monthly Accrual Report will be submitted to the EG&G subcontract administrator. The format for the Monthly Accrual Report is identified in the MTS.

2.0 MASTER SCHEDULE

2.1 Introduction

2.1.1 Basis

The basis for the Master Schedule for the OU4 Phase II RFI/RI project is the EG&G SOW, dated March 31, 1994 (Rev. 3) and the ES proposal dated September 27, 1993. The Master Schedule reflects the understanding of the work and the technical approaches identified in response to the SOW.

2.1.2 Schedule Assumptions

The Master Schedule reflects the following significant assumptions:

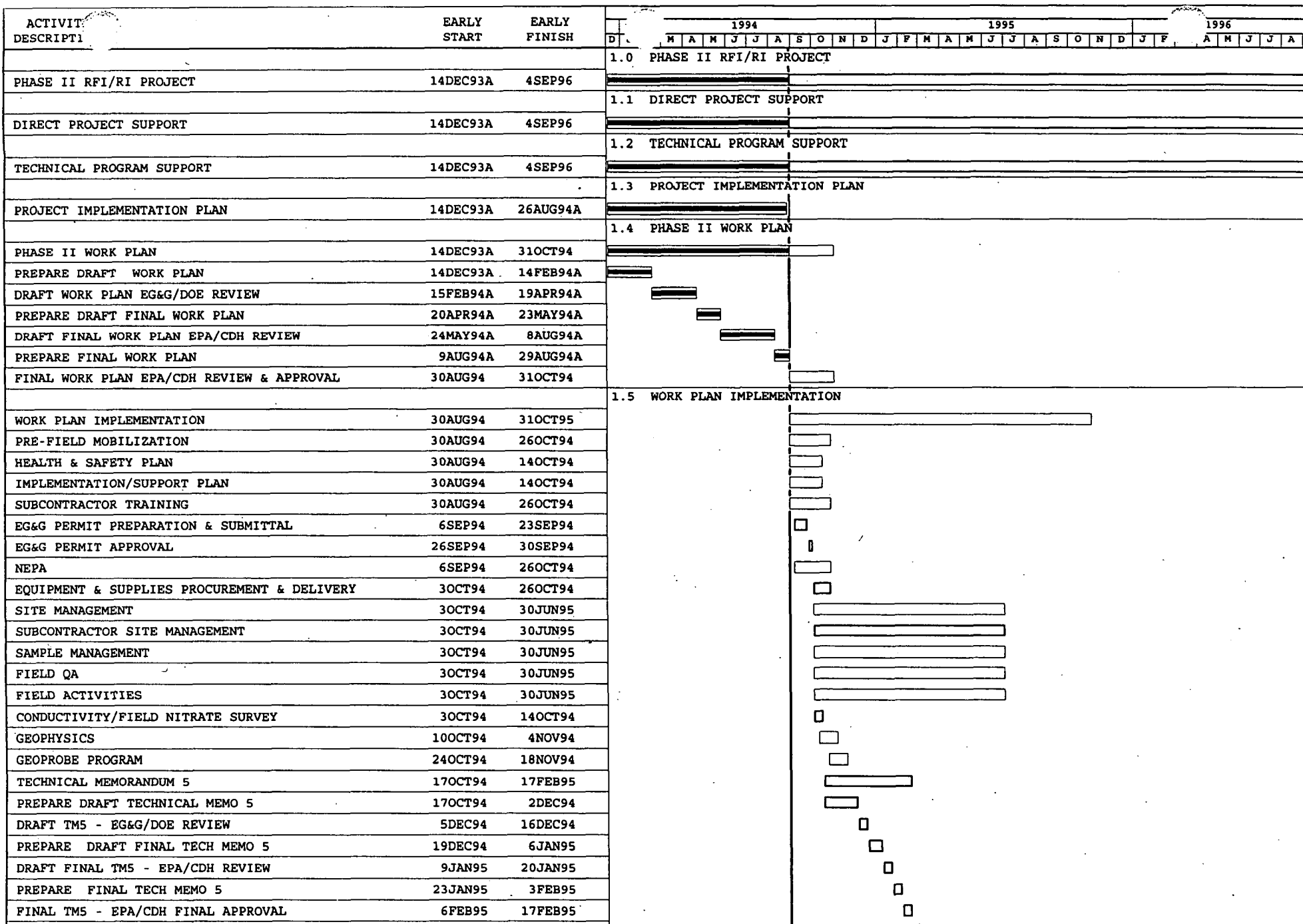
- Work was initiated on December 14, 1993, upon receipt of the EG&G Letter Subcontract and Authorization to Proceed.
- Planned milestones are in accordance with the EG&G Statement of Work.
- Document review times are in accordance with the IAG for Rocky Flats.
- Field mobilization and training is assumed to begin one month prior to final approval of the Phase II RFI/RI Work Plan, and two months prior to final approval of the Phase II RFI/RI Implementation/Support Plan.
- Field implementation will not begin until approval (conditional) of the Final Phase II RFI/RI Work Plan, Implementation/Support Plan, the Health and Safety Plan, and completion of training.
- Presentations to EG&G, DOE, EPA, and CDH at the 30% and 60% completion points will be scheduled during performance of the work, as approved by EG&G.

2.2 GANT Chart Schedule

The initial issue of the Master Schedule was submitted for EG&G review on January 4, 1994. The initial schedule included the sequence and logic relationship of planned activities during 1994 and 1995, and the summary sequence and duration of activities planned to begin in 1996 and later.

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Plot Date 26AUG94
Data Date 30AUG94
Project Start 14DEC93
Project Finish 4SEP96



Activity Bar/Early Date
Critical Activity
Progress Bar
Milestone/Flag Activity

9254

PARSONS/ES
FIGURE 2-1: OU4 PHII RFI/RI
MASTER SCHEDULE

Sheet 1 of 1

MASTER SCHEDULE

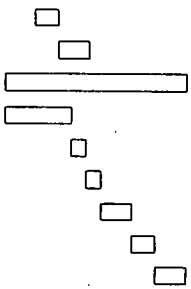
Date	Revision	Checked	Approved

PARSONS/ES
FIGURE 2-1: OUA PHII RFI/RI
MASTER SCHEDULE

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28

ACTIVITY DESCRIPTI	EARLY START	EARLY FINISH	1994												1995												1996																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Since the initial issue of the Master Schedule, significant changes have occurred to the OU4 Phase II RFI/RI WBS and overall approach to the field investigations. The Final Phase II RFI/RI Work Plan incorporates the changes that have been previously discussed and approved by the OU4 CTR and staff. The Final Phase II RFI/RI Work Plan is scheduled for delivery to EG&G on August 29, 1994 for review and subsequent issue to the DOE, EPA, and CDH for approval. Based on the results of the Final Phase II RFI/RI Work Plan review, Parsons/ES and EG&G will update the OU4 Phase II RFI/RI Master Schedule and re-submit for incorporation with this PIP. Figure 2-1 reflects the current understanding of the OU4 Phase II RFI/RI progress and summary level schedule.

The Master Schedule will be periodically updated to incorporate EG&G comments and/or authorized changes, to reflect progress of the work, and to develop detailed planning for later activities. The "rolling wave" concept of detailed planning will be incorporated in the Master Schedule to provide flexibility and to simplify the reporting and planning tools.

2.3 Activity Schedules

Upon authorization of each Control Account (Level 2 & 3), activity schedules (Levels 3, 4, and 5) are developed in accordance with the Master Schedule and the approved Control Account baselines. The activity schedules provide the sequence, durations, logic relationship, milestones, and time-phased manhour budgets of the activities within each Control Account for work planning and progress assessment. *Subsequent to revising the OU4 Phase II RFI/RI Master Schedule, Activity Schedules for FY95 and FY96 actions will be updated and issued for incorporation in this PIP.*

Progress assessments are made each week on the Activity Schedules, using the identified earned value techniques and based on the physical progress of the work. Statused activity schedules will be available for submittal to EG&G weekly.

2.4 Resource Loading

The ES proposal dated September 27, 1993 provides the planned resource loading in response to the EG&G Statement of Work. OU4 Phase II RFI/RI resource plans and loading will be modified to reflect definition of the effort upon authorization by EG&G.

APPENDIX A
WBS DICTIONARY

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.0		5. WBS ELEMENT TITLE PHASE II RFI/RI PROJECT	
6. INDEX LINE NUMBER 01	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous, Travel, CADD, GIS</p> <p>b. Technical Content/Work Statement Includes the following activities: Direct Project Support, Technical Program Support, Project Implementation Plan, OU4 Phase II Work Plan, Work Plan Implementation, and preparation of the OU4 Phase II RFI/RI Report.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.1		5. WBS ELEMENT TITLE DIRECT PROJECT SUPPORT	
6. INDEX LINE NUMBER 02	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Provide direct support to EG&G to ensure management oversight, coordination, and control of all Parsons/ES project requirements and activities within negotiated budget, schedule, and quality requirements of the contract. Specifically, provide project management and project controls representation and involvement in: project scoping, scheduling, and budgeting discussions; project tracking and status reporting; attendance at weekly status and contractor integration meetings; technical support on regulatory and community relations issues; and supervision of quality assurance actions and procedures to ensure conformance to all technical, regulatory, and contractual standards applicable to the OU4 Phase II RFI/RI project.</p>			

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WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.3.1		5. WBS ELEMENT TITLE Master Schedule	
6. INDEX LINE NUMBER 13	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Develop and maintain the master schedule for effective implementation of the OU4 Phase II RFI/RJ project. The master schedule will include appropriate detail to manage the OU4 Phase II RFI/RJ project and will illustrate the negotiated durations and logic sequencing of all activities included within the Work Breakdown Structure (WBS).</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.3.2		5. WBS ELEMENT TITLE Project Management Plan	
6. INDEX LINE NUMBER 14	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Develop and maintain a Project Management Plan that: includes the approved project management and technical organization supporting the OU4 Phase II RFI/RJ; outlines the assigned responsibility matrix; contains the current Work Breakdown Structure; details the project control system to be used to include cost and schedule management and reporting requirements.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.1		5. WBS ELEMENT TITLE Project Scoping	
6. INDEX LINE NUMBER 17	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Define the general and specific objectives of the OU4 Phase II RFI/RI and develop a detail scoping statement for the preparation of a work plan that will satisfy project objectives. Participate in meetings with EG&G, the DOE, CDH, and EPA to obtain necessary input and gain concurrence of work plan objectives and scope.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.1		5. WBS ELEMENT TITLE Data Evaluation	
6. INDEX LINE NUMBER 19	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Review available hydrogeologic, geochemical, geophysical, and environmental information associated with the Rocky Flats Environmental Technology Site to gain insights into the current understanding of the nature and extent of groundwater contamination attributable to the Solar Evaporation Ponds and support the identification of data needs and subsequent work plan objectives.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.2		5. WBS ELEMENT TITLE Data Quality Objectives	
6. INDEX LINE NUMBER 20	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Specify the quality and quantity of data required and identify appropriate field sampling and analytical methods to support the specific objectives of the OU4 Phase II RFI/RI project.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.3		5. WBS ELEMENT TITLE Field Sampling Plan	
6. INDEX LINE NUMBER 21	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Develop a detailed plan for collecting field data that satisfies established DQOs, eliminates/minimizes existing data gaps, and supports the OU4 Phase II RFI/RI project objectives. Specifically, the Field Sampling Plan (FSP) will: summarize the technical approach and rationale; identify appropriate field technologies; specify site specific implementation and methodology for individual field technologies; describe the analytical and quality assurance/quality control requirements applicable; and describe the requirements for the management of investigation-derived materials/waters.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.4.1		5. WBS ELEMENT TITLE Human Health Risk Assessment	
6. INDEX LINE NUMBER 23	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Prepare project specific methodology to determine the overall risk to human health from potentially toxic contaminants present at OU4. The methodology will conform to published and accepted guidance for human health risk assessments and include stipulations for: identifying potential contaminants of concern (COCs) and their exposure pathways; estimating exposure concentrations to determine appropriate toxicity values in relevant media; utilizing constituent fate and transport study information to define receptors; characterizing likelihood of human health impact; and quantifying the uncertainty associated with the risk characterization.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.4.2		5. WBS ELEMENT TITLE Environmental Evaluation	
6. INDEX LINE NUMBER 24	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Prepare project specific methodology to assess the risk of adverse impacts to ecological receptors from potentially toxic contaminants present at OU4. The methodology will conform to published and accepted guidance for Environmental Evaluations (EE) and consider the depleted ecosystem at OU4 as documented in OU4 Environmental Evaluation Technical Memorandum No. 3 (EETM 3) submitted on June 21, 1993. The EE will include stipulations for determining the probability of biological impacts within OU4 and/or biotic transport of potentially toxic quantities outside OU4, as well as characterize the ecological risks and associated uncertainties.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.5		5. WBS ELEMENT TITLE Quality Assurance Addendum	
6. INDEX LINE NUMBER 25	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Develop a project specific Quality Assurance Addendum (QAA) to the "Rocky Flats Environmental Technology Site Quality Assurance Project Plan for CERCLA RI/FS and RCRA RFI/CMS Activities" (QAPjP) which establishes the QA controls applicable to the OU4 Phase II RFI/RI field investigation.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.1.2.6		5. WBS ELEMENT TITLE Standard Operating Procedures	
6. INDEX LINE NUMBER 26	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Survey the RFETS program-wide Standard Operating Procedures (SOPs) and identify the SOPs applicable to the conduct of the OU4 Phase II RFI/RI OU4 Phase II RFI/RI project.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft Work Plan	
6. INDEX LINE NUMBER 29	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Phase II RFI/RI Work Plan to EG&G for review and subsequent submission to the DOE.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft Work Plan	
6. INDEX LINE NUMBER 30	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G and DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Phase II RFI/RI Work Plan and provide comments to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Work Plan	
6. INDEX LINE NUMBER 31	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Work Plan	
6. INDEX LINE NUMBER 32	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Revise Draft Phase II RFI/RI Work Plan and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Phase II RFI/RI Work Plan for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final Work Plan	
6. INDEX LINE NUMBER 34	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Phase II RFI/RI Work Plan to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final Work Plan	
6. INDEX LINE NUMBER 35	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content CDH & EPA Activity</p> <p>b. Technical Content/Work Statement Review Draft Final Phase II RFI/RI Work Plan and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final Work Plan	
6. INDEX LINE NUMBER 36	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final Work Plan	
6. INDEX LINE NUMBER 37	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Phase II RFI/RI Work Plan and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Phase II RFI/RI Work Plan for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final Work Plan	
6. INDEX LINE NUMBER 39	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Phase II RFI/RI Work Plan to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.4.2.3.2		5. WBS ELEMENT TITLE Review/Approve - Final Work Plan	
6. INDEX LINE NUMBER 40	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity Subcontractor Efforts</p> <p>b. Technical Content/Work Statement Review Final Phase II RFI/RI Work Plan and provide notice of approval to EG&G.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.1.1		5. WBS ELEMENT TITLE Health & Safety Plan	
6. INDEX LINE NUMBER 43	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontractor Efforts b. Technical Content/Work Statement Review the EG&G furnished Health & Safety Plan for applicability to specific field activities outlined in the OU4 Phase II RFI/RI Work Plan and provide input to EG&G.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.1.2		5. WBS ELEMENT TITLE Implementation/Support Plan	
6. INDEX LINE NUMBER 44	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous, Travel, CADD, GIS b. Technical Content/Work Statement Prepare the necessary materials to smoothly implement the Phase II RFI/RI Work Plan, and specifically, the Field Sampling Plan (Section 5) portion of the Work Plan. Materials to be prepared include field personnel organizational chart (including names of personnel), mobilization check list, work progress check list, weekly reporting check list, subcontractor responsibility wall chart graphic, subcontractor concurrence form and personnel time in / time out check list.			

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WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3				
4. WBS ELEMENT CODE 1.5.1.3		5. WBS ELEMENT TITLE Subcontractor Training					
6. INDEX LINE NUMBER 45	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A				
9. APPROVED CHANGES N/A							
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER					
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous </div> <div style="margin-left: 20px;"> b. Technical Content/Work Statement Analyze the training needs to support the Phase II field effort, develop a training matrix, and schedule and attend training classes. A partial list of training classes is listed below. </div> <div style="margin-left: 20px;"> <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">General Employee Training (GET), OSHA 40-hour Training, ASRP QA Overview Briefing, Respirator Fit, Hearing Conservation (CBT), RFEDs Training,</td> <td style="width: 25%;">General Employee Radiological, OSHA 8-hour Refresher, ERM QA Briefing, Radiation Worker Training Level II, RCRA/Hazcon on-the-job Training, Health and Safety Plan Briefing,</td> <td style="width: 25%;">Building Indoctrination 788/750, OSHA Supervisor, Site-Specific Briefing (Pre-Evolution), Dept. of Transportation (DOT) Training, Emergency Preparedness Brief, Decontamination Pad Training,</td> <td style="width: 25%;">Hazard Communication CBT, RCRA CBT, Respirator Indoctrination, DOT Function-Specific Training, Computer Security, Drum Training.</td> </tr> </table> </div>				General Employee Training (GET), OSHA 40-hour Training, ASRP QA Overview Briefing, Respirator Fit, Hearing Conservation (CBT), RFEDs Training,	General Employee Radiological, OSHA 8-hour Refresher, ERM QA Briefing, Radiation Worker Training Level II, RCRA/Hazcon on-the-job Training, Health and Safety Plan Briefing,	Building Indoctrination 788/750, OSHA Supervisor, Site-Specific Briefing (Pre-Evolution), Dept. of Transportation (DOT) Training, Emergency Preparedness Brief, Decontamination Pad Training,	Hazard Communication CBT, RCRA CBT, Respirator Indoctrination, DOT Function-Specific Training, Computer Security, Drum Training.
General Employee Training (GET), OSHA 40-hour Training, ASRP QA Overview Briefing, Respirator Fit, Hearing Conservation (CBT), RFEDs Training,	General Employee Radiological, OSHA 8-hour Refresher, ERM QA Briefing, Radiation Worker Training Level II, RCRA/Hazcon on-the-job Training, Health and Safety Plan Briefing,	Building Indoctrination 788/750, OSHA Supervisor, Site-Specific Briefing (Pre-Evolution), Dept. of Transportation (DOT) Training, Emergency Preparedness Brief, Decontamination Pad Training,	Hazard Communication CBT, RCRA CBT, Respirator Indoctrination, DOT Function-Specific Training, Computer Security, Drum Training.				

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.1.4		5. WBS ELEMENT TITLE Equipment & Supplies	
6. INDEX LINE NUMBER 46	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous </div> <div style="margin-left: 20px;"> b. Technical Content/Work Statement Obtain supplies and equipment for field program implementation (including all sonic and hollow stem auger drilling). Drilling-related supplies are specified in SOP GT-1 and GT-2. Drilling supplies such as well screen, bentonite, filter pack sand, grout, portland cement, protective casing, bumper posts, and surface casing is typically supplied by the drilling subcontractor. Health and safety supplies such as Tyvek suits, Saranex suits, booties, inner and outer gloves, ear plugs, and respirator cartridges are typically ordered by the subcontractor. A field computer, copier, and field vehicles are also typically supplied by the subcontractor. Aquifer pumping and slug testing equipment will be obtained from storage or purchased. A list of required equipment and supplies will be compared to an inventory of existing equipment and supplies, the needed supplies and equipment will be purchased. </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.1.5		5. WBS ELEMENT TITLE EG&G Permit Preparation & Submittal	
6. INDEX LINE NUMBER 47	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement A partial list of required permits includes: Radiation Work Permit (RWP), Integrated Work Control Package (IWCP), Soil Disturbance Permit (includes utility clearance as detailed in GT 24), Vehicle Permits for PA, Buffer Zone Passes (as needed) and Well Permits. Other permits will be prepared and submitted, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.1.1.1.1		5. WBS ELEMENT TITLE Personnel Management	
6. INDEX LINE NUMBER 56	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Includes management of Parsons/ES field personnel by the Parsons/ES site manager. The Parsons/ES site manager ensures that Parsons/ES field personnel understand their assignments as directed by Field Operations Manager and the Subcontractor Site Manager. The goal is to ensure that Parsons/ES personnel operate in an efficient and cost effective manner while functioning as members of the OU4 Phase II field team.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.1.1.1.2		5. WBS ELEMENT TITLE Equipment & Supplies Management	
6. INDEX LINE NUMBER 57	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement The Parsons/ES site manager will be responsible for managing the flow of equipment and supplies required to support the field effort. Small equipment and supplies will be stored in the two OU4 Conex storage containers located in the T891 contractor's yard. The scheduling of equipment delivery to the site will be coordinated with Field Operations Management to ensure that equipment is available for scheduled field activities and in order to maintain the overall field schedule. Scheduling will allow for equipment to undergo a pre-activity field screening and decontamination prior to use in the field. The Parsons/ES site manager will ensure that adequate supplies are available to start field work and will order additional supplies on an as needed basis.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.1.1.1.3		5. WBS ELEMENT TITLE Field Schedule Maintenance	
6. INDEX LINE NUMBER 58	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement The Parsons/ES site manager will support maintenance of the field schedule, as directed by Field Operations Management. Staffing levels and daily work hours will be adjusted in order to maintain the field schedule and ensure rested, alert and efficient field crew. The health and safety of the field crews will remain the highest priority.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.1.2		5. WBS ELEMENT TITLE Plan Of the Day (POD) Meetings	
6. INDEX LINE NUMBER 62	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement The Parsons/ES site manager will attend the T891 Contractor's Yard Plan Of the Day meetings (currently held every Monday at 08:00 hrs) at trailer T891E. The Parsons/ES site manager will submit a completed POD form listing the following weeks' activities to P. McCorkle at trailer T891E by 12:00 hrs every Thursday. EG&G Construction Management personnel assigned to OU4 will attend daily POD meetings held at various locations inside the Protected Area (PA) for work conducted inside the PA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.2.1		5. WBS ELEMENT TITLE Material Transfer Tag	
6. INDEX LINE NUMBER 64	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parson/ES Labor Subcontractor Effort</p> <p>b. Technical Content/Work Statement Ensuring Material Transfer Tags are properly completed and affixed to material leaving either the Protected Area (PA) or plant site. Material Transfer Tags require sign-off by the project Site Safety Officer (SSO) to ensure radiological screening has been performed. In addition, material leaving the PA also requires a Property Release Evaluation (PRE) from EG&G Radiological Engineering.</p>			

**WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.2.2		5. WBS ELEMENT TITLE Database Management (RFEDS)	
6. INDEX LINE NUMBER 65	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Manage the flow of data into the RFEDS (Rocky Flats Environmental Database) system according to Standard Operating Procedure (SOP) FO.14. This involves a weekly submittal to an EG&G RFEDS representative consisting of chain of custodies, form FO.14A and a data diskette.</p>			

**WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.2.3		5. WBS ELEMENT TITLE Field QA (Quality Assurance)	
6. INDEX LINE NUMBER 66	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Perform necessary quality assurance actions on field data, logs, etc., according to the Final Phase II RFI/RI Work Plan Quality Assurance Addendum (QAA), Rocky Flats Quality Assurance Project Plan (QAPjP), Parsons/ES Quality Assurance Program Plan, and applicable Rocky Flats Standard Operating Procedures (SOPs) such as FO.13 and FO.14.</p>			

**WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.1		5. WBS ELEMENT TITLE Conductivity/Field Nitrate Survey	
6. INDEX LINE NUMBER 80	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Utilize a downhole specific conductivity probe to measure in situ conductivity and temperature in selected monitoring wells, piezometers, and surface water locations. Samples will be collected from the same wells, piezometers and surface water locations and analyzed in the field for nitrate content.</p>			

**WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.2		5. WBS ELEMENT TITLE Geophysics	
6. INDEX LINE NUMBER 81	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Apply geophysical methods to identify preferential ground water pathways through the mapping of the bedrock surfaces (weathered and unweathered), the water table, and high conductivity inorganic contaminant plumes. Geophysical methods will include seismic refraction (compressional and shear wave), ground penetrating radar (GPR), frequency domain electromagnetic (EM) and downhole geophysics.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.3		5. WBS ELEMENT TITLE Geoprobe Program	
6. INDEX LINE NUMBER 86	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Includes mobilizing and deploying the well point installation (geoprobe) rig. Mobilizing the rig onsite includes a rig safety inspection by EG&G Health & Safety personnel, and smearing and decontaminating the rig at the main decontamination facility. Mobilizing into the protected area (PA) includes a security inspection prior to entry into PACs 1 or PACs 2. Using the geoprobe rig in the field involves obtaining all permits and clearances normally required for drilling activities. A standard geoprobe crew, rig geologist, health & safety personnel and QA auditors will accompany the geoprobe rig into the field.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.1		5. WBS ELEMENT TITLE Data Compilation / Analysis (TM #5)	
6. INDEX LINE NUMBER 90	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Historical RFEDS data, data from nearby OUs and new, Phase II RFI/RI field data will be compiled and analyzed in preparation of Technical Memorandum #5 (TM #5). Historical and other data will be analyzed before and during the field effort. New data collected during the Phase II field effort will be rapidly analyzed and incorporated into TM #5.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.1		5. WBS ELEMENT TITLE Preparation - Tech Memo #5	
6. INDEX LINE NUMBER 92	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Integrate the results of the conductivity/field nitrate survey, geophysics study, well point installation (geoprobe) program, and surface water/ITS monitoring efforts with historically relevant hydrogeological data and document the findings in Technical Memorandum #5 (TM #5). TM #5 will include a detailed analysis of the integrated data and provide recommendations for future field actions to include the proposed siting of new monitoring wells in support of the OU4 Phase II RFI/RI project objectives.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #5	
6. INDEX LINE NUMBER 95	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #5 to EG&G for review and subsequent submission to the DOE.</p>			

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1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
OU4/Phase II	8/19/94	343780GG3
4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE	
1.5.4.4.2.2.1.2	Review & Comment - Draft TM #5	
6. INDEX LINE NUMBER	7. REVISION NO. AND AUTHORIZATION	8. DATE
96	N/A	N/A
9. APPROVED CHANGES		
N/A		
10. SYSTEM DESIGN DESCRIPTION	11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION		
<p>a. Cost Content EG&G\DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Technical Memorandum #5 and provide comments to Parsons/ES.</p>		

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #5	
6. INDEX LINE NUMBER 97	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION			
<p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #5	
6. INDEX LINE NUMBER 98	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Revise Draft Technical Memorandum #5 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #5 for transmittal.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #5	
6. INDEX LINE NUMBER 100	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #5 to EG&G/DOE for subsequent delivery to CDH and EPA.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #5	
6. INDEX LINE NUMBER 101	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content CDH/EPA Activity</p> <p>b. Technical Content/Work Statement Review Draft Final Technical Memorandum #5 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #5	
6. INDEX LINE NUMBER 102	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #5	
6. INDEX LINE NUMBER 103	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #5 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #5 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #5	
6. INDEX LINE NUMBER 105	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #5 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.2.2.3.2		5. WBS ELEMENT TITLE Review & Approval - Final TM #5	
6. INDEX LINE NUMBER 106	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity</p> <p>b. Technical Content/Work Statement Review Final Technical Memorandum #5 and provide notice of approval to EG&G.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.3		5. WBS ELEMENT TITLE Data Compilation/Analysis (TM #6)	
6. INDEX LINE NUMBER 107	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Historical RFEDS data, data from nearby OUs, and Phase II RFI/RI field data will be compiled and analyzed in preparation of Technical Memorandum #6 (TM #6). Note: Technical Memorandum #6 is currently unscopd.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.1		5. WBS ELEMENT TITLE Preparation - Tech Memo #6	
6. INDEX LINE NUMBER 109	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Technical Memorandum #6 (TM #6) is currently unscoped.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #6	
6. INDEX LINE NUMBER 112	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #6 to EG&G for review and subsequent submission to the DOE.</p>			

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1. PROJECT TITLE/PARTICIPANT	2. DATE	3. IDENTIFICATION NUMBER
OU4/Phase II	8/19/94	343780GG3
4. WBS ELEMENT CODE	5. WBS ELEMENT TITLE	
1.5.4.4.4.2.1.2	Review & Comment - Draft TM #6	
6. INDEX LINE NUMBER	7. REVISION NO. AND AUTHORIZATION	8. DATE
113	N/A	N/A
9. APPROVED CHANGES		
N/A		
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER
12. ELEMENT TASK DESCRIPTION		
<p>a. Cost Content EG&G/DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Technical Memorandum #6 and provide comments to Parsons/ES.</p>		

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #6	
6. INDEX LINE NUMBER 114	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div> a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD </div> <div> b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required. </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #6	
6. INDEX LINE NUMBER 115	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Technical Memorandum #6 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #6 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #6	
6. INDEX LINE NUMBER 117	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #6 to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #6	
6. INDEX LINE NUMBER 118	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content CDH/EPA Activity</p> <p>b. Technical Content/Work Statement Review Draft Final Technical Memorandum #6 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #6	
6. INDEX LINE NUMBER 119	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #6	
6. INDEX LINE NUMBER 120	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #6 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #6 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #6	
6. INDEX LINE NUMBER 122	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #6 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.4.4.2.3.2		5. WBS ELEMENT TITLE Review/Approval - Final TM #6	
6. INDEX LINE NUMBER 123	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content EG&G, DOE, CDH, and EPA Activity b. Technical Content/Work Statement Review Final Technical Memorandum #6 and provide notice of approval to EG&G. </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.1		5. WBS ELEMENT TITLE Mobilization	
6. INDEX LINE NUMBER 125	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts b. Technical Content/Work Statement Drill rig(s) will be brought on site and subjected to a safety inspection. Drill rig and all intrusive downhole equipment (sampling augers, reaming augers, center bits, split spoons, "A" rods) are smeared for radioactive contamination. If smear results are negative all equipment is steam cleaned on decontamination pad. PA and/or buffer zone passes are obtained for appropriate individuals. Site personnel attend a pre-evolution meeting with EG&G project managers. Field personnel are issued an adequate number of two-way radios. Training and health and safety records of all site personnel are checked for completeness, with copies of all records at site for auditing purposes. </div>			

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WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.1.1		5. WBS ELEMENT TITLE Drill-Protected Area	
6. INDEX LINE NUMBER 128	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement All drilling, sampling, and well placement/abandonment equipment is taken to building T-130 to be inspected and/or x-rayed. Upon approval, equipment is brought into the PA via a portal where all vehicles are inspected before passage into the PA. All field personnel must be escorted by appropriate personnel while in the PA, no more than three personnel per escort will be allowed. All real time radiological instruments will be calibrated and/or cleared by personnel at building 790. All drill sites will be cleared for utilities by construction management. All drill rigs will have at least one two-way radio at all times. All drilling activities will be conducted in accordance with the latest relevant Geotechnical SOPs and the OU4 Phase II RFI/RI Work Plan.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.1.2		5. WBS ELEMENT TITLE Well Construction - Protected Area	
6. INDEX LINE NUMBER 129	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement A state well permit will be obtained prior to placement of any well for any purpose. This work includes setting of any and all required casing, preparation of sump, screen, blank casing, surface casing (if appropriate), grouts, sand or filter packs, bentonite seals, centralizers (if appropriate), and placement of surface well head features as required and according to Geotechnical standard operating procedures. All well casing will be steam cleaned prior to use. All well casing and related materials will be inspected/x-rayed at building T130.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.1.3		5. WBS ELEMENT TITLE Develop - Protected Area	
6. INDEX LINE NUMBER 130	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Includes all appropriate well development procedures according to Geotechnical SOPs (e.g. surging, bailing, sand bailing, and pumping) to assure the proper operation of well filter pack, screen, and pumps (if appropriate). All excess water generated during development will be containerized and disposed of in accordance with applicable SOPs (Geotechnical and Field Operations).</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.2.1		5. WBS ELEMENT TITLE Drill - Non - Protected Area	
6. INDEX LINE NUMBER 133	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement All field personnel will obtain a buffer zone pass. All drill sites will be cleared for utilities by construction management. All drill rigs will have at least one two-way radio at all times. All drilling activities will be conducted in accordance with the latest Geotechnical SOPs and the OU4 Phase II RFI/RI Work Plan.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.2.2		5. WBS ELEMENT TITLE Well Construction - Non - Protected Area	
6. INDEX LINE NUMBER 134	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts </div> <div style="margin-left: 20px;"> b. Technical Content/Work Statement A state well permit will be obtained prior to placement of any well for any purpose. This work includes setting of any and all required casing, preparation of sump, screen, blank casing, surface casing (if appropriate), grouts, sand or filter packs, bentonite seals, centralizers (if appropriate), and placement of surface well head features as required and according to the latest Geotechnical SOPs. All well casing will be steam cleaned prior to use. </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.2.3		5. WBS ELEMENT TITLE Develop - Non - Protected Area	
6. INDEX LINE NUMBER 135	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts </div> <div style="margin-left: 20px;"> b. Technical Content/Work Statement Includes all appropriate well development procedures according to Geotechnical SOPs (e.g. surging, bailing, sand bailing, and pumping) to assure the proper operation of well filter pack, screen, and pumps (if appropriate). All excess water generated during development will be containerized and disposed of in accordance with applicable SOPs (Geotechnical and Field Operations). </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.3.1		5. WBS ELEMENT TITLE Drill - Floodplain	
6. INDEX LINE NUMBER 138	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement All field personnel will obtain a buffer zone pass. All drill sites will be cleared for utilities by construction management. All drill rigs will have at least one two-way radio at all times. All drilling activities will be conducted in accordance with the latest Geotechnical SOPs and the OU4 Phase II RFI/RI Work Plan.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.3.2		5. WBS ELEMENT TITLE Well Construction - Floodplain	
6. INDEX LINE NUMBER 139	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement A state well permit will be obtained prior to placement of any well for any purpose. This work includes setting of any and all required casing, preparation of sump, screen, blank casing, surface casing (if appropriate), grouts, sand or filter packs, bentonite seals, centralizers (if appropriate), and placement of surface well head features as required and according to the latest Geotechnical SOPs. All well casing will be steam cleaned prior to use.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.5.2.3.3		5. WBS ELEMENT TITLE Develop - Floodplain	
6. INDEX LINE NUMBER 140	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Includes all appropriate well development procedures according to Geotechnical SOPs (e.g. surging, bailing, sand bailing, and pumping) to assure the proper operation of well filter pack, screen, and pumps (if appropriate). All excess water generated during development will be containerized and disposed of in accordance with applicable SOPs (Geotechnical and Field Operations).</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.6		5. WBS ELEMENT TITLE Corelogging	
6. INDEX LINE NUMBER 142	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement All drill core will be logged according to Geotechnical SOP GT.01 (Logging Alluvial and Bedrock Material). All drill core will be screened for radiological, metal, and organic contamination prior to undergoing the logging process. All drill core will be photographed prior to being logged. All drill core logs will be reviewed and signed off by a competent EG&G representative.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.7.1		5. WBS ELEMENT TITLE Slug Tests	
6. INDEX LINE NUMBER 144	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Slug tests will be performed in several monitoring wells to determine <i>in situ</i> hydrodynamic properties (e.g., hydraulic conductivities) of water-bearing intervals and provide a basis for evaluating the validity of laboratory-derived permeability tests. The number and location of slug tests will be determined based on performance of other field screening techniques (e.g., pump tests, geophysics, etc.) in determining areal hydraulic conductivity associated with each geologic units of the Upper HSU and Lower HSU. All slug tests will be performed in accordance with SOP GW.02.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.5.4.7.2.		5. WBS ELEMENT TITLE Pump Tests	
6. INDEX LINE NUMBER 145	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts</p> <p>b. Technical Content/Work Statement Constant-rate pumping tests will be performed in accordance with SOP GW.08. At least four pumping tests will be performed, one in the Rocky Flats Alluvium, one in valley fill alluvium, and two in weathered intervals of bedrock material. If contaminants and sufficient water yields are found in wells penetrating unweathered bedrock of the Lower HSU, additional pumping tests may be initiated. A step-drawdown test will be performed in each well prior to pumping in order to select the optimum pumping rate and pump placement depth. Additionally, a recovery test will be performed in each well that is pump tested.</p>			

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WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.1.1		5. WBS ELEMENT TITLE GIS	
6. INDEX LINE NUMBER 163	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement The GIS system (ERMA) will be used to facilitate the transmittal of field and RFEDs data to the Parsons/ES Denver office. GIS will also be utilized to expedite posting, sorting, and graphical display of data for interpretation and analysis.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.1.2		5. WBS ELEMENT TITLE Analytical Data/Input	
6. INDEX LINE NUMBER 164	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Compile all field and analytical data and verify that the quality control/assurance measures required by applicable SOPs, the QAPjP, and Final Phase II RFI/RI Work Plan have been performed. As required, input boring, well installation, and sample information/results into the RFEDS and/or other databases (e.g., ERMA/GIS, "Logit", etc.) and backup input data on diskette/tape. Download RFEDS/Logit data weekly and provide to EG&G. Track waste generation during field operations and provide reports to EG&G, as requested.</p>			

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.1.3		5. WBS ELEMENT TITLE Field Logs & Reports	
6. INDEX LINE NUMBER 165	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION			
<p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Catalog and maintain all field logs, notes, and field data transmittal forms in accordance with applicable SOPs, the QAPjP, and Final Phase II RFI/RI Work Plan.</p>			

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.1		5. WBS ELEMENT TITLE Introduction	
6. INDEX LINE NUMBER 168	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION			
<p>a. Cost Content Parsons/ES Labor Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Addresses purpose of investigation, scope, historical background, and methods of investigation.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.2		5. WBS ELEMENT TITLE Physical Characteristics of Site	
6. INDEX LINE NUMBER 169	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Outlines the OU4 geographic boundaries, physiography, ecology, mean and extreme weather conditions, topography, regional and site specific geology, and describes how these factors influence hydrogeologic characteristics of site.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.4		5. WBS ELEMENT TITLE Nature and Extent of Contamination	
6. INDEX LINE NUMBER 171	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Using the OU4 Phase II RFI/RI derived and other historically relevant data, identifies and discusses: concentrations of the contaminants of concern (COCs) attributable to the SEPs; the COCs background concentrations at RFETS; and the horizontal and vertical extent of the COC migration in surface water/sediments, ground water, soils, and vadose zone media from various OU4 sources.</p>			

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.5		5. WBS ELEMENT TITLE Contaminant Fate and Transport	
6. INDEX LINE NUMBER 172	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor</p> <p>b. Technical Content/Work Statement Describes potential routes of chemical migration in various site media; factors potentially affecting migration; physical, chemical, and/or biological factors affecting chemical persistence; and application and results of fate and transport modeling.</p>			

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.7		5. WBS ELEMENT TITLE Summary and Conclusions	
6. INDEX LINE NUMBER 177	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION			
<p>a. Cost Content Parsons/ES Labor Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Prepare a concise summary of the OU4 Phase II RFI/RI objectives and assess the relative success in satisfying project objectives. Include discussion of key results/findings, as well as identify remaining data requirements and recommend future investigatory/remedial activities.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.1.8		5. WBS ELEMENT TITLE Appendices	
6. INDEX LINE NUMBER 178	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontractor Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Assemble key analytical/field documentation, past Technical Memoranda, applicable quality assurance/control evaluation records, and other relevant documentation necessary to complete the formal OU4 Phase II RFI/RI record.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft RFI/RI Report	
6. INDEX LINE NUMBER 181	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft OU4 Phase II RFI/RI Report to EG&G for review and subsequent submission to the DOE.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft RFI/RI Report	
6. INDEX LINE NUMBER 182	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G/DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft OU4 Phase II RFI/RI Report and provide comments to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft RFI/RI Report	
6. INDEX LINE NUMBER 183	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontractor Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft RFI/RI Report	
6. INDEX LINE NUMBER 184	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft OU4 Phase II RFI/RI Report and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final OU4 Phase II RFI/RI Report for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final RFI/RI Report	
6. INDEX LINE NUMBER 186	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final OU4 Phase II RFI/RI Report to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

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1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final RFI/RI Report	
6. INDEX LINE NUMBER 187	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content CDH/EPA Activity b. Technical Content/Work Statement Review Draft Final OU4 Phase II RFI/RI Report and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.			

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final RFI/RI Report	
6. INDEX LINE NUMBER 188	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final RFI/RI Report	
6. INDEX LINE NUMBER 189	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final OU4 Phase II RFI/RI Report and incorporate CDH/EPA comments as resolved and approved. Prepare the Final OU4 Phase II RFI/RI Report for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final RFI/RI Report	
6. INDEX LINE NUMBER 191	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final OU4 Phase II RFI/RI Report to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.2.2.3.2		5. WBS ELEMENT TITLE Review/Approval - Final RFI/RI Report	
6. INDEX LINE NUMBER 192	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity</p> <p>b. Technical Content/Work Statement Review Final OU4 Phase II RFI/RI Report and provide notice of approval to EG&G.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3		5. WBS ELEMENT TITLE BASELINE RISK ASSESSMENT	
6. INDEX LINE NUMBER 193	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Summarize the overall risk to the environment and human health posed by potentially toxic contaminants present at OU4 and provide data critical to determining the need for future remedial actions. The Baseline Risk Assessment (BRA) will be based on the results of the Environmental Evaluation and Human Health Risk Assessment studies which will consider the OU4 conceptual model of existing site conditions, contaminants, and exposure pathways as determined/verified by the Phase II RFI/RI field investigation.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.1		5. WBS ELEMENT TITLE Environmental Evaluation (EE)	
6. INDEX LINE NUMBER 194	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Assess the risk of adverse impacts to ecological receptors from potentially toxic contaminants present at OU4. The Environmental Evaluation (EE) will consider the depleted ecosystem at OU4 as documented in OU4 Environmental Evaluation Technical Memorandum No. 3 (EETM 3) submitted on June 21, 1993. The EE will include stipulations for determining the probability of biological impacts within OU4 and/or biotic transport of potentially toxic quantities outside OU4, as well as characterize the ecological risks and associated uncertainties.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2		5. WBS ELEMENT TITLE Human Health Risk Assessment (HHRA)	
6. INDEX LINE NUMBER 195	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Determine the overall risk to human health from potentially toxic contaminants present at OU4 through the: identification of potential contaminants of concern (COCs) and their exposure pathways; estimation of exposure concentrations to determine appropriate toxicity values in relevant media; utilization of constituent fate and transport study information to define receptors; characterization of likelihood of human health impact; and quantification of the uncertainty associated with the risk characterization. The technical content of the Human Health Risk Assessment will be primarily derived from four (4) Technical Memoranda prepared and submitted for review and approval throughout OU4 Phase II RFI/RI project.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.1		5. WBS ELEMENT TITLE Preparation - Technical Memo #1	
6. INDEX LINE NUMBER 197	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Define the exposure pathways by which a hypothetical receptors may be exposed to contaminants originating from OU4 and determine which pathways are complete (i.e., represent a plausible/demonstrated route of exposure). Include discussions of: contaminant source and release mechanisms; contaminant transport medium (e.g. air, groundwater, soil, etc.); and potential points of contact and routes of entry for contaminated medium in humans.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #1	
6. INDEX LINE NUMBER 200	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #1 to EG&G for review and subsequent submission to the DOE.</p>			

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1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft TM #1	
6. INDEX LINE NUMBER 201	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION			
<p>a. Cdst Content EG&G/DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Technical Memorandum #1 and provide comments to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #1	
6. INDEX LINE NUMBER 202	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <div style="margin-left: 20px;"> a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required. </div>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #1	
6. INDEX LINE NUMBER 203	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Technical Memorandum #1 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #1 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #1	
6. INDEX LINE NUMBER 205	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #1 to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #1	
6. INDEX LINE NUMBER 206	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content CDH/EPA Activity b. Technical Content/Work Statement Review Draft Final Technical Memorandum #1 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.			

WORK BREAKDOWN STRUCTURE DICTIONARY

PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #1	
6. INDEX LINE NUMBER 207	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #1	
6. INDEX LINE NUMBER 208	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #1 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #1 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #1	
6. INDEX LINE NUMBER 210	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #1 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

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WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.1.2.3.2		5. WBS ELEMENT TITLE Review/Approve - Final TM #1	
6. INDEX LINE NUMBER 211	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity</p> <p>b. Technical Content/Work Statement Review Final Technical Memorandum #1 and provide notice of approval to EG&G.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.1		5. WBS ELEMENT TITLE Preparation - Tech Memo #2	
6. INDEX LINE NUMBER 213	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Determine exposure scenarios for present and future receptors appropriate to OU4 and quantify: the exposure point concentrations at the receptor locations; the frequencies and durations of exposure; and the human intake associated with completed exposure pathways. Define assumptions used in modeling exposure point concentrations and estimating human intake rates of contaminants of concern.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #2	
6. INDEX LINE NUMBER 216	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #2 to EG&G for review and subsequent submission to the DOE.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft TM #2	
6. INDEX LINE NUMBER 217	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G/DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Technical Memorandum #2 and provide comments to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #2	
6. INDEX LINE NUMBER 218	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #2	
6. INDEX LINE NUMBER 219	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Technical Memorandum #2 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #2 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #2	
6. INDEX LINE NUMBER 221	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #2 to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #2	
6. INDEX LINE NUMBER 222	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content CDH/EPA Activity</p> <p>b. Technical Content/Work Statement Review Draft Final Technical Memorandum #2 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #2	
6. INDEX LINE NUMBER 223	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #2	
6. INDEX LINE NUMBER 224	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #2 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #2 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #2	
6. INDEX LINE NUMBER 226	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #2 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.2.2.3.2		5. WBS ELEMENT TITLE Review/Approve - Final TM #2	
6. INDEX LINE NUMBER 227	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity</p> <p>b. Technical Content/Work Statement Review Final Technical Memorandum #2 and provide notice of approval to EG&G.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.1		5. WBS ELEMENT TITLE Preparation - Tech Memo #3	
6. INDEX LINE NUMBER 229	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Using both historically relevant radiological/chemical release data and the results of the validated water quality analyses developed during the OU4 Phase II RFI/RI: perform a detailed screening to identify the most prevalent, toxic, persistent, and/or mobile contaminants; and determine contaminants most likely to contribute significantly as risks to human health. The specifics of the screening process and resulting selection of contaminants of concern (COCs) will be presented in this Technical Memorandum.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #3	
6. INDEX LINE NUMBER 232	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #3 to EG&G for review and subsequent submission to the DOE.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft	
6. INDEX LINE NUMBER 233	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content EG&G/DOE Activity b. Technical Content/Work Statement Review Draft Technical Memorandum #3 and provide comments to Parsons/ES.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #3	
6. INDEX LINE NUMBER 234	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #3	
6. INDEX LINE NUMBER 235	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Technical Memorandum #3 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #3 for transmittal.</p>			

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1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #3	
6. INDEX LINE NUMBER 237	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #3 to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

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WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #3	
6. INDEX LINE NUMBER 238	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content CDH/EPA Activity b. Technical Content/Work Statement Review Draft Final Technical Memorandum #3 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #3	
6. INDEX LINE NUMBER 239	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #3	
6. INDEX LINE NUMBER 241	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #3 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #3 for transmittal.</p>			

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1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #3	
6. INDEX LINE NUMBER 242	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #3 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.3.2.3.2		5. WBS ELEMENT TITLE Review/Approve - Final TM #3	
6. INDEX LINE NUMBER 243	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content EG&G, DOE, CDH, and EPA Activity b. Technical Content/Work Statement Review Final Technical Memorandum #3 and provide notice of approval to EG&G.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.1		5. WBS ELEMENT TITLE Preparation - Tech Memo #4	
6. INDEX LINE NUMBER 245	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD b. Technical Content/Work Statement Characterize the relationship between dose or intake of both carcinogenic and noncarcinogenic COCs associated with OU4 and the potential for incidence of adverse human health effects to previously defined receptors. Document appropriate toxicity and health-protective criteria/constants and develop toxicological profiles for each OU4 COC to include discussions of their: fate and transport within the OU4 media; acute and chronic toxic effects; and uncertainty associated with toxicity assessment values/results.			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.1.1		5. WBS ELEMENT TITLE Transmittal - Draft TM #4	
6. INDEX LINE NUMBER 248	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Technical Memorandum #4 to EG&G for review and subsequent submission to the DOE.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.1.2		5. WBS ELEMENT TITLE Review & Comment - Draft TM #4	
6. INDEX LINE NUMBER 249	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G/DOE Activity</p> <p>b. Technical Content/Work Statement Review Draft Technical Memorandum #4 and provide comments to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.1.3		5. WBS ELEMENT TITLE Comment Resolution - Draft TM #4	
6. INDEX LINE NUMBER 250	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review EG&G/DOE comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE reviewers to negotiate comment responses and obtain approval, as required.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.1.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft TM #4	
6. INDEX LINE NUMBER 251	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Technical Memorandum #4 and incorporate EG&G/DOE comments as resolved and approved. Prepare the Draft Final Technical Memorandum #4 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.2.1		5. WBS ELEMENT TITLE Transmittal - Draft Final TM #4	
6. INDEX LINE NUMBER 253	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Draft Final Technical Memorandum #4 to EG&G/DOE for subsequent delivery to CDH and EPA.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.2.2		5. WBS ELEMENT TITLE Review & Comment - Draft Final TM #4	
6. INDEX LINE NUMBER 254	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content CDH/EPA Activity</p> <p>b. Technical Content/Work Statement Review Draft Final Technical Memorandum #4 and provide comments to DOE/EG&G for subsequent delivery to Parsons/ES.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.2.3		5. WBS ELEMENT TITLE Comment Resolution - Draft Final TM #4	
6. INDEX LINE NUMBER 255	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Review CDH/EPA comments and prepare/submit appropriate responses to EG&G/DOE for review/concurrence. Meet with EG&G/DOE to negotiate comment responses and obtain approval, as required. Support EG&G/DOE in negotiations with CDH/EPA on responses to comments.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.2.4		5. WBS ELEMENT TITLE Incorporation of Comments - Draft Final TM #4	
6. INDEX LINE NUMBER 256	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Subcontracted Efforts Other Direct Costs - GIS, CADD</p> <p>b. Technical Content/Work Statement Revise Draft Final Technical Memorandum #4 and incorporate CDH/EPA comments as resolved and approved. Prepare the Final Technical Memorandum #4 for transmittal.</p>			

WORK BREAKDOWN STRUCTURE DICTIONARY **PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.3.1		5. WBS ELEMENT TITLE Transmittal - Final TM #4	
6. INDEX LINE NUMBER 258	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content Parsons/ES Labor Other Direct Costs - Miscellaneous</p> <p>b. Technical Content/Work Statement Prepare transmittal letter and appropriate number of copies and submit the Final Technical Memorandum #4 to EG&G for subsequent delivery to DOE, CDH and EPA.</p>			

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1. PROJECT TITLE/PARTICIPANT OU4/Phase II		2. DATE 8/19/94	3. IDENTIFICATION NUMBER 343780GG3
4. WBS ELEMENT CODE 1.6.3.2.4.2.3.2		5. WBS ELEMENT TITLE Review/Approve - Final TM #4	
6. INDEX LINE NUMBER 259	7. REVISION NO. AND AUTHORIZATION N/A		8. DATE N/A
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION		11. BUDGET AND REPORTING NUMBER	
12. ELEMENT TASK DESCRIPTION <p>a. Cost Content EG&G, DOE, CDH, and EPA Activity</p> <p>b. Technical Content/Work Statement Review Final Technical Memorandum #4 and provide notice of approval to EG&G.</p>			

APPENDIX B
WBS GRAPHIC

THIS TARGET SHEET REPRESENTS AN
OVER-SIZED MAP / PLATE FOR THIS DOCUMENT:
(Ref: MTS 343780GG3; MTS 225453RR;
PHII:082694:01)

**Operable Unit No. 4
Solar Evaporation Ponds
Interagency Agreement (IAG) Phase II
RCRA Facility Investigation/Remedial
Investigation (RFI/RI) Requirements
Post Closure Assessment
Project Implementation Plan
(Revised Draft - Rev. 2)**

August 1994

Figure 4:

**Solar Evaporation Ponds Operable
Unit #4 Phase II RFI/RI
Requirements Post Closure
Assessment Work Breakdown
Schedule**

CERCLA Administrative Record Document, I101-A-000332

**U.S. DEPARTEMENT OF ENERGY
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE**

GOLDEN, COLORADO

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